Overcoming the Challenges – the Impact of COVID-19 on Agricultural Higher Education in Ukraine

Olena KNYSH¹, Oksana DUDZIAK²

¹Ph.D, Assoc. Professor, State Agrarian and Engineering University in Podilya, Kamianets-Podilskyi, Ukraine, e-mail address: olena.knysh.pdatu@gmail.com

²Dr. Ec. Sc., Assoc. Professor, State Agrarian and Engineering University in Podilya, Kamianets-Podilskyi, Ukraine, e-mail address: Ksenish05@gmail.com

Abstract: Due to the COVID-19 outbreak, higher education institutions all over the world have been faced with the urgent need for going online. Still, higher education institutions in Ukraine have met this new challenge with significant gaps in online education expertise. In this paper, we provide a brief overview of the major challenges that have become relevant to Ukrainian agricultural universities in the pandemic period. In particular, we tried to evaluate the main areas where the major interventions have been carried out, such as providing access to relevant ICT infrastructure, methodological support and training of academic staff etc. The results of the case study support the conclusion that the rapid shift to remote learning has the potential to be the impetus for radical decisions in the context of implementation of pedagogical innovations and digital tools in agricultural higher education.

Keywords: *higher education; online education; digital learning; coronavirus; COVID-19.*

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1. Introduction

The current COVID-19 outbreak has become one of the most serious challenges of our time and made a huge impact on various spheres of human life. Even though the pandemic situation in Ukraine has not become tremendous, the overall risk of the population is rated as high, due to deterioration healthcare system and unstable economy (United Nations Office for the Coordination of Humanitarian Affairs, 2020). Therefore, all the educational facilities in the country, including universities, were required to shut-down in-person classes for at least six weeks.

Considering recent events, higher education in Ukraine has been faced with the urgent need for going online and switching to distance teaching and learning technologies. However, despite the strong verbal support for the digitalization of Ukrainian society, higher education institutions in Ukraine have met this new challenge with significant gaps in online education expertise. Some universities have achieved progress in the implementation of various distance learning tools into the educational process, while others have had to approach this kind of upheaval mostly unprepared. The latter include Ukrainian institutions of higher agricultural education that traditionally stay lag behind the global and national trends in the context of their openness to pedagogical innovations and digital tools in teaching and learning. In this paper, we provide a brief overview of the major challenges that have become relevant to Ukrainian agricultural universities in the pandemic period and outline the possible positive effects of the turbulence they are forced to go through.

2. Literature review

A significant amount of studies has aimed at various aspects of creation of online learning environment (Redmond et al., 2018). Strategic approaches to the use of online technologies in higher education, ensuring student engagement, integrating MOOCs into the academic programs, as well as using mobile gadgets in the classroom are widely covered in the literature. But under the present circumstances, the real capacity of the higher education to work online was put to the test. Many experts reasonably question the ability of the universities to assure the quality of online education they provide.

However, in a pandemic, academia faced with the need to rethink the role of online education. It is emphasized (Davidson & Katopodis, 2020; Wang et al., 2020) that the teaching and learning process under new conditions requires innovation and flexibility, the willingness to change not

only approaches to teaching in comparison with traditional pedagogy but also to modify these approaches throughout the implementation process. Recommendations for teachers facing the need for a temporary online transition (Barret-Fox, 2020) warn against the desire to develop perfect content for online courses since the primary purpose of the teacher's activity today is not to improve teaching methods online. Moving online with a lack of adequate support is considered only as a short-term solution, not an effective online education as it should be (Miller, 2020). The main goal today is to ensure the realization of the educational process in the current circumstances.

Online education has always been recognized as an instrument erasing spatial boundaries and making education more accessible. The day coronavirus outbreak has stopped the world, distance learning became the key instrument for educators all around the globe. For transitional education systems, the switch to online education may seem as challenging as the epidemic itself. At the same time, researchers emphasize (Brodnick & Gryskiewicz, 2018) that innovative approaches can transform the turbulence into a force of positive change.

3. Case of agricultural universities in Ukraine

As already mentioned, overall progress in the implementation of digital teaching and learning technologies in Ukrainian higher education has been particularly slow for agricultural universities. Within the Ukrainian educational landscape, there are 19 universities specialized in agricultural sciences, represented by one national flagship and a number of regional universities. Leading universities implement the action-plans aimed to provide the appropriate ICT infrastructure of the educational environment, as well as the training of academic staff for the introduction of digital technology into their teaching. However, the situation in institutions with regional status is somewhat different.

Some weak points emerge from the analysis of public documents containing development strategies of respective universities. Institutions of higher agriculture education frequently identify priority areas, essential for creating digitally-enabled learning environment, such as the development of the relevant IT infrastructure, the extension of distance and mixed education practices, improvement of methodological support of the educational process following the needs of online education, the training of academic staff, the improvement of teaching and assessment methods, etc. However, these measures generally lack quantitative targets, do not receive separate

funding, and the quality of digital tools has always been the concern of academic staff only. Moreover, some strategies are limited to general phrases about the need to modernize the educational environment to meet the needs of the digital world, without planning any specific steps; some of them do not voice such steps at all.

Access to relevant ICT infrastructure. Universities that have not yet demonstrated a real interest in developing its ICT infrastructure do not have enough resources to move teaching and learning online. The quality of existing resources generally does not help to fully meet the educational needs of teachers and students. Therefore, the responsibility for organizing online learning was shifted to teachers. In most cases, the system of support for academic staff is limited to operating internal distance learning platforms, advisory support, or simply publishing assignments for students. Interactive online learning initiatives are the exception and not the rule. At the same time, we need to keep in mind that the students at regional agricultural universities and colleges come predominantly from rural areas. Staying at home, they deal with poor internet connectivity, let alone their limited skills of using their own gadgets for learning.

Methodological support. All the technological limitations have unexpectedly triggered unlimited academic freedom for faculty staff in choosing the platforms, tools and methods for using ICT in teaching and learning. Approbation and validation of new technologies have become a requirement of time. Therefore, sharing the experience has shifted from theoretical discussions on educational trends to the dissemination of good practices.

Academic staff training. Academics were not sufficiently prepared for online teaching and learning. From the beginning, the main problems with enabling staff to integrate ICT into their teaching were the relatively low number of academics that have completed any kind of pedagogical training, their general commitment to traditional pedagogy and reluctance to change anything, due to lack of funding, inadequate support, excessive workload, etc. Today, training for academic staff have also been shifted to online learning, and skepticism replaced with engagement.

Consequently, finding themselves at the point where the teaching and learning process turned out to be dependent on the use of digital learning technologies, agricultural universities started implementing measures to improve the existing learning environment. Stakeholders' engagement has always been an important feature of agriculture higher education. Many years' experience of cooperation with the agricultural industry became helpful for adapting to a digitally enabled environment.

Practical training in agricultural education is more oriented to the needs of industry, rather than the educational process, and is very strongly tied to the time frames. It requires the ability to quickly adapt educational content, to stay flexible and open to all the possible changes in schedule and course content. Looking for the best combination of theory and practice, universities have already approbated the model of dual study environment and flipped learning. It is this experience that will become a starting point for significant changes in agricultural higher education.

4. Conclusion

In Ukraine, agriculture universities in the face of COVID-19 challenge need to revise their teaching and learning strategies. This significant and much-needed transformation also means moving from declarative statements to achievable goals and short-term priorities. Thus, exposing problems has the potential to be the impetus for radical decisions. Today's challenges will not stay here only for a few weeks, as they will be followed by greater economic challenges. The experience gained under the new conditions is a prerequisite for rapid adaptation to the demands of the agricultural industry. Improving the quality of higher agricultural education will help to increase the efficiency of agricultural production as one of the key sectors of the Ukrainian economy. That, in turn, is critical to global concerns, managing the impact of the epidemic, as well as the economic crisis.

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