



"The use of technologies in the learning and teaching process (on the example of world experience)"

Virtual TAM seminar in Turkmenistan



The educational system of Turkmenistan is currently undergoing significant developments with integration of information technologies and distant learning. The possibilities of internet stimulate both students and teachers' interest in opportunities offered by blended learning, online courses and other ICT tools as well as access to innovations in teaching and learning. The new

trends of using educational technology in the classroom lead to radical changes in teaching instructions, assessments and the physical character of classrooms, and also change the students' roles turning them into active participants with the main task of acquiring and processing knowledge. On 10 December 2021, the virtual TAM seminar "The use of technologies in the



learning and teaching process” was held as part of the SPHERE activities in the framework of Erasmus+ Programme of the European Union for higher education institutions of Turkmenistan.

The main aim was to share best practices of the European countries in the field of digitalization of higher education institutions. The seminar was delivered by the International Expert Pere Juarez Vives, Professor of the Barcelona University (UB) on the following topics:

- University digitalization: key points, technology and methods
- Digitalization of higher education in the European fields of higher education. Modernization of HEIs through digital transformation
- The case of the University of Barcelona: the use of constructive (creative) think-

ing to digital transformation. Digital competences of students and teachers

Dr. P. J. Vives started the lecture from the influence of the pandemic on the system of EU universities, which, despite the limitations, accelerated the digitalization of the educational sphere. Online education today, as a forced answer to the quarantine, has become a leading trend in the education and the reality of the educational process ensuring the transition to the distance learning technology. Those higher education institutions that have developed remote technologies and used information





systems in their management with digitized content of education, have coped painlessly with this challenge. Governments of those countries that did not contribute to the development of remote forms of training (or even prevented this), in turn realize now that it is impossible to interfere with progressive education.

According to the survey report¹, before COVID-19 the majority (90%) of EU students studied mainly on campus. The pandemic has accelerated exploring new tools for communication and collaboration, and new ways of teaching. It has accelerated the enhancing of online library use and plans for

¹ M. Gaebel, Th. Zhang, H. Stoeber, A. Morrisroe “Digitally enhanced learning and teaching in European higher education institutions” <https://eua.eu/downloads/publications/digi/he%20survey%20report.pdf>

updating institution’s policies on remote work, increased the use of virtual staff meetings.

Over the past five years digitalization has contributed to major transformation at the European higher education institutions: to learning and teaching methods and provision, collaboration between HEIs at national and international levels, and provision of open learning opportunities, widening access for long-life learning, disadvantaged learners. Digitalization has also increased the virtual mobility, collaboration with society, employers and industry.

Based on the survey data, Dr P. Vives gave recommendations on the developing skills necessary to attain competency in the Digital Age:

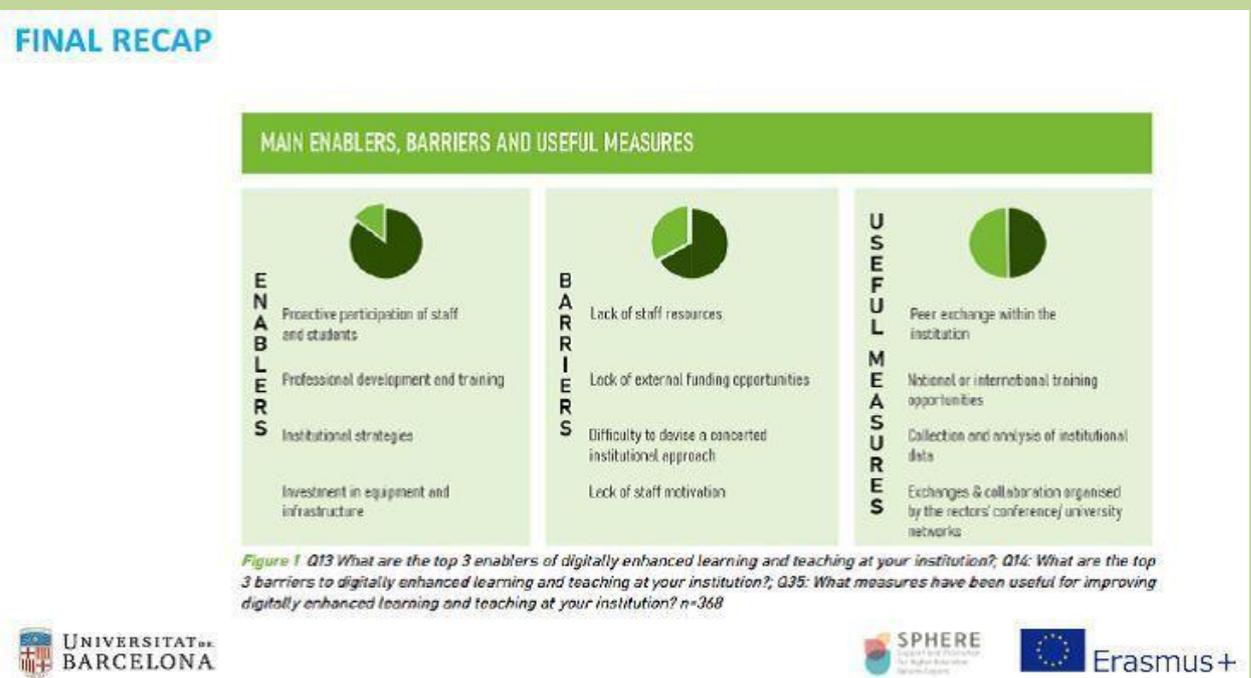


- Basic functional digital skills, i.e. efficiently use digital information for searching information.
- Generic digital skills: use digital devices for communication and cooperation with others to interpret and create information sources.
- Use digital technology in empowering and transformative ways.

It should be noted that online education intensifies the problems of the education quality and determines other approaches to the functioning tools and Quality Assurance (QA) procedure. Digital transformation covers both the architecture and the content of the QA model, and has obvious advantages: it simplifies its mechanism and

increases efficiency, reduces temporary and resource costs.

For the development of the educational model of QA, “... certification of learning and competencies is usually the precondition for the transition between social systems – between different educational levels (i.e. schooling and tertiary education), between different learning institutions, and later, between the educational system and the labour market. In general terms, the central questions are: what knowledge and competences a person brings from an institution (educational institution, company, etc.) to the new institution and how he or she can prove this – or rather: how this is formally recognised.” (P. J. Vives)



Therefore, in the future, the development of a national QA model will provide for the creation of a digital ecosystem aimed at the effective functioning and interaction of all its elements.

As a final recap, Dr P. Vives summarized the ideas, highlighting 3 enables and 3 barriers to digitally enhanced learning and teaching at HEIs, and 3 useful measures for their improving:

3 enables:

Proactive participation of staff and students

Professional development and training

Institutional strategies

3 barriers:

Lack of staff resources

Lack of external funding opportunities

Lack of staff motivation

3 useful measures:

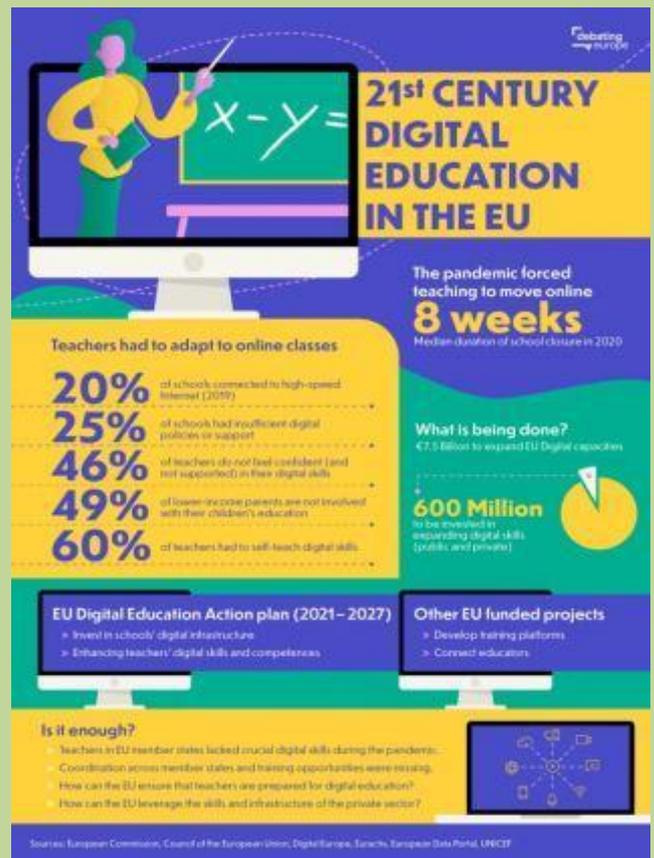
Peer exchange within the institution

National or international training opportunities

Collection and analysis of institutional data

The COVID-19 crisis led to a sudden and large-scale use of digital learning practices.

However, the data indicate that educational inequalities have been strengthened: the challenges are related, among others, to connectivity, lack of digital skills of learners and teaching staff, lack of quality education



resources. Evidence shows differences between levels, sectors of education and training, and countries. Online learning has been provided as a solution, for at least a proportion of students, in all high income countries, but not as equally among countries in the other income groups. Many education and training institutions need experience and struggle to offer distance and online learning opportunities to all their students.

The seminar participants were familiarized with the approaches to the digital transformation of higher education based on the EU Digital Education Action Plan for 2021-2027. The Plan emphasizes the Europe-wide



development of connectivity, infrastructure and cooperation and providing access to digital skills for all. The digital action plan says: “The quality and inclusiveness of education and training systems and providing digital skills for all during the digital and green transitions is of strategic importance for the EU.” The EU Digital Education Action Plan includes two initiatives designed to strengthen the contribution of education and training to the European Union’s recovery from the coronavirus crisis and help build a “green and digital Europe”.

Among the practical steps suggested in the Action Plan there are:

1. A European Digital Skills Certificate (EDSC) which could be recognised and accepted by governments, employers and other stakeholders across Europe.
2. To improve cooperation on digital education at the EU level, it is intended to establish a European Digital Education Hub to support member states through a network of national advisory services on digital education exchange experience and good practice.
3. For higher education, the European Universities initiative will develop virtual and face-to-face EU inter-university campuses and implement innovative models of digital higher education.
4. The European Student Card Initiative will play a key role in secure electronic ex-



change and verification of student data and academic records simplify the management of student mobility.

5. To foster closer cooperation and help to overcome policy fragmentation, outreach events in the form of a stakeholder forum would bring together member states, EU institutions, and education stakeholders. These would include teacher and parent organisations, local authorities, civil society groups and businesses, especially companies committed to the digital education agenda.

The plan suggests funding should be sought from the Erasmus programme, the European Social Fund, the European Regional Development Fund and smart specialisation policies, the Connecting Europe Facility, the

Digital Europe Programme, and Horizon Europe.

In an ever-changing business landscape shaped by increasingly competitive markets, entrepreneurial thinking is critical for managers to drive creative changes and growth. The Barcelona University is considered today one of the most advanced smart cities in the world. Entrepreneurs and innovators are nurtured and cultivated in this forward-thinking city that attracts outstanding tech talent and innovative startups.

Students explore the main components of innovation and new business creation, and gain understanding of entrepreneurial activity and the conditions in which it can be effectively developed. With a focus on developing creative thinking and executive skills,



students discover entrepreneurial challenges and solutions and take the opportunity to evaluate and conceptualize business models. The university is adopting an innovative hybrid approach to on-campus learning that combines the best of face-to-face and virtual learning. Studying innovation and entrepreneurship at the UB gives students the opportunity to expand their knowledge in business.

From experiences of University of Barcelona, Dr. P.J. Vives highlighted the Guiding Principles that are essential to make education and training systems fit for the Digital Age:

- High quality and inclusive digital education, which respects the protection of personal data and ethics, needs to be a strategic goal of all bodies and agencies active in education and training.
- Transforming education for the digital age is a task for the whole society.
- Appropriate investment in connectivity, equipment and organizational capacity and skills should ensure that everybody has access to digital education.
- Universities should develop an ICT strategy with the support of the state and stakeholders.

- Digital education should play a pivotal role in increasing equality and inclusiveness.
- Digital competence should be a core skill for all educators and training staff.
- Education leaders play a key role in digital education.
- Basic digital skills should become part of the transferable skills for any future active citizen

The main lessons learned:

- Successful implementation of e-learning requires proper training of academic staff.
- In order for the learning process to be more effective and modern, it is necessary to combine technology and pedagogical skills.
- The recognition of online courses and degrees should be solved at national level.
- Special attention should be paid to Quality Assurance (QA) of e-learning courses.



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