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onlineHE

IO4. Policy and Practice Guidelines for Integrating eLearning in Higher Education

Policy Recommendation Report

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Executive Summary

The report that follows is an attempt at a thorough account of the methodology, findings, conclusions, and recommendations following the national research studies conducted in all partner countries comprising the consortium of the Erasmus + OnlineHE project, i.e. Romania, Cyprus, Lithuania, Greece, Spain, and Serbia. The research goal was to identify the methods used in the process of implementation of online education, including the methods applied in the emergency remote teaching period.

The report represents a comprehensive picture of the current state of affairs in higher education in the above-mentioned partner countries concerning the manner of organising and implementing distance learning, with a special focus on the period of COVID-19 lockdown and the impact it had on the process of higher education. The report was compiled based on the conducted research, whereby the researchers resorted to a threefold method of data collection: a) desk research, b) a checklist questionnaire, and c) interviews with policymakers and educational stakeholders.

The research aimed to utilise different but equally relevant perspectives to identify the existing policies, strategies, practices and experiences when it comes to the implementation of full online teaching and learning, with special emphasis on the COVID-19 emergency period and the sudden and complete transition to online education. The results revealed through the research and presented within this policy recommendation report will serve as the basis for overall policy guidelines for integrating eLearning into higher education, at the level of project partner countries but also hopefully on a broader European level.

The overall research at the level of all partner countries revealed that distance learning was not a new concept in higher education in partner countries before the COVID-19 pandemic. Higher education institutions had resorted to some types of distance learning even before the pandemic, to a greater extent in some partner countries such as Cyprus and Lithuania, and a lesser extent in some other partner countries such as Serbia and Romania. However, there were no prior practices of fully online education at the level of higher education institutions, and in that respect, it is a general stance that higher education in partner countries was not entirely ready for the sudden and complete transition to fully online learning. Neither students nor the staff had the full scope of adequate skills to make the transition seamless. However, it is encouraging to learn that all parties in this process learned valuable lessons and made efforts to make the most out of the newly created circumstances. The valuable responses obtained from relevant

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interlocutors reveal potential paths that higher education institutions could take when it comes to the form and content of integrating eLearning across universities.

The research conducted within this intellectual output revealed some important aspects of the sudden and complete transition to online education at the time of the COVID-19 emergency, the way that online education and distance learning, in general, were perceived before and after the COVID-19, as well as potential paths and directions of further developing and upholding eLearning in higher education. Even though there is slight resistance towards fully online courses, higher education institutions in all partner countries appear to be aware of the inevitability of online education in the future, and it is on the way of searching for the perfect formula to find the right balance between traditional and electronic learning.

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1. Introduction to the Policy Recommendation Report

During the COVID-19 lockdown period, more than 90% of higher education students and staff in Europe and around the world switched to fully online lectures. Needless to say, everyone was taken aback by the new circumstances. Most higher education institutions, staff and students alike, were simply unprepared for such a sudden and complete transition to online learning. Consequently, the higher education community is faced with the necessity to urgently address the issue of online education in terms of perceiving it as an important aspect of education in the digital era and adopting and implementing adequate policies and strategies to integrate e-learning across the university.

The aim of the research conducted to generate the policy recommendation report was to determine the current policies, strategies, approaches and practices in the field of distance learning and online teaching in higher education institutions in all partner countries. The research was based on a mixed-method approach, and it comprised threefold data collection techniques:

1. Desk research
2. A survey: distribution of a checklist questionnaire
3. Open-ended interviews with policymakers, and educational stakeholders

The desk research was performed to identify and analyse the existing national legislation which advocates and supports the development of online higher education in partner countries.

When it comes to field research, i.e. the distribution of a checklist questionnaire, the consortium teams resorted to the eLearning readiness checklist developed as a part of the Erasmus +

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OnlineHE project. The readiness checklist was based on the European Commission's the SELFIE tool. The list was adapted for this research, the questions were translated into partner languages and structured in the form of online questionnaires (Google Form) to be distributed by e-mail to potential respondents. They were distributed in the period between November 2022 and January 2023 to higher education partners and associates in partner countries to reach the necessary responses among HE stakeholders. We resorted to this particular sampling method due to the limited time to conduct research and a strong need to obtain responses in a short time. The items in the checklist questionnaire inquired into respondents´ experiences regarding the distance learning strategies and practices at their respective HEIs during the COVID-19 lockdown until now, the involvement of HE staff in the process of defining strategies, procedures and directions of their HEIs about distance learning, rights and responsibilities of all parties involved in the process of distance learning, advantages and disadvantages of distance learning at HEIs in partner countries, the capacities of HEIs and their leaders in partner countries to conduct full online teaching and learning process, the readiness of both staff and students to engage in the process of full online teaching and learning, etc. The statements were either presented in the form of a 5-point Likert scale (frequency and usefulness) or nominal scales (yes, no, I do not know). A minimum of 20 respondents was required per country to fill in the distributed questionnaires. The data were analysed by resorting to an inductive approach using descriptive statistics.

Last but not least, open-ended interviews were organised in the period between November 2022 and January 2023. Project partners identified potential interviewees by taking into consideration the quality of relevant responses that could be obtained from persons identified for this segment of the research. The researchers approached the potential interviewees by either approaching them directly or by sending an informative email and inviting them to participate in the research. After obtaining their consent, the researchers organised the time, place and form of respective interviews.

The interviews included semi-structured questions in partner languages and were conducted either online or in a face-to-face conversation with policymakers and educational stakeholders. The results were interpreted by resorting to narrative analysis.

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2. Results and Discussion

2.1 Romania

2.1.1. National Policy Recommendations - Interviews

On December 12, 2022, the University of Pitesti conducted interviews with two decision-makers regarding the organisation and development of the online education process. The interviews lasted for 40 minutes each, and they were attended by the vice-rector for the quality of education at the University of Pitesti, and the head of the Centre for Quality Management and University Programmes.

The transcription of answers for the first interview. The person interviewed: the vice-rector for the quality of education in the University of Pitesti.

1. Were there any strategies and regulations regarding distance and/or fully online learning at the higher education (hereinafter: HE) level prior to COVID-19?

At the University of Pitesti, there were no strategies and regulations regarding online learning before the COVID-19 pandemic. Instead, a specialised platform was used for part-time study programmes that were adapted to the demands of online learning during the pandemic.

2. If so, were those strategies and regulations easily applicable in the situation of a sudden transition to full online education at HE institutions during the period of COVID-19? If not, what were the main shortcomings of previously defined strategies and regulations?

This platform was used only for the electronic provision of didactic material for students. Its adaptation during the pandemic required efforts from both teachers and students.

3. What important lessons and conclusions have you drawn from the sudden and unexpected transition to digital learning in HE during COVID-19?

Despite the inertia during the first two months of resorting to online education, the system eventually started to work. We reached acceptable performance in the first year of use and achieved quite advanced parameters in the second year of use. This was noted by students and teachers alike. The difficult aspect of the situation was reflected in the limited possibility of

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practical training in the case of specialisations in the field of applied sciences (sports, arts, etc.) and engineering.

4. With what aspects of the transition to full online teaching in higher education during COVID19 are you satisfied?

Rapid adaptation of the teaching staff.

Engaging students by participating in training activities.

Intensification of students' studio activities.

5. What aspects need further attention and improvement when it comes to distance/fully online learning and teaching at HEs?

Stopping assessment fraud.

Finding ways to maintain high levels of student attention in online communication.

Constantly maintaining a high interest in the information transmitted in the online environment.

6. ***If so, have you already initiated public discussions and activities to regulate every aspect of digital learning****:*

a. Have you discussed with university leaders, and the HE staff the future of distance learning in our country, and the possibility of fully legally regulating every aspect of this form of education at HE institutions?

The Romanian Agency for Quality Assurance in Higher Education (ARACIS) held a series of meetings in this regard. Following these meetings and working sessions held by expert groups, a series of standards have been developed. Also, the new national education law, under public debate, regulates the organisation of university education in a fully online system.

b. Have you obtained the opinions of the teaching and non-teaching staff about the challenges they encountered with the full transition to online learning?

The University of Pitesti discussed, in informal settings, with the teaching and non-teaching staff the transition to online education and tried to remedy as many of the less positive situations signalled by them as possible.

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c. What were the results of those discussions and consultations? Were they beneficial for the next step towards regulating all aspects of digital learning in HE?

Following these discussions and taking into account the standards established by the ARACIS, the internal regulations were adapted to the new reality of online education.

7. In your opinion, what are the biggest challenges when it comes to full legal regulation of distance learning at HE institutions?

Compliance with data protection provisions.

Specific certification of the level of knowledge accumulated by graduates who followed a fully online education system.

Remote assessment mode with complete avoidance of fraud possibilities on the part of the students.

Transcript of answers for the second interview. Interviewee: Head of the Centre for Quality Management and University Programmes

1. Were there any defined strategies and regulations (for instance, online practices regulated by a Statute or a Rulebook) regarding distance and/or full online learning at your higher education (hereinafter: HE) institution prior to COVID19?

By 2020, at the University of Pitesti, there was no online learning strategy. However, at the time of the pandemic, we had a platform that part-time students could access and download their course materials. This platform has been refined, giving teachers the ability to conduct online assessments, upload student grades, and video conference with students. Students could also upload their assignments and have discussions with both their professors and peers.

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2. If so, were those strategies and regulations easily applicable in the situation of a sudden transition to full online education at your HE institutions in the period of COVID19? If not, what were the main shortcomings of previously defined online practices and procedures?

The University of Pitesti created a specific regulation that regulated the online educational process so that there is a unified approach to it. Also, the faculties had the freedom to customise the content of the regulation through specific procedures.

3. In your opinion, how ready was your HE institution for the full transition to online learning during COVID19?

Strictly speaking, at the beginning of the pandemic the University of Pitesti was not prepared for a fully online education process, but the adaptation was done quickly and efficiently.

4. In your opinion, was the teaching staff ready to exchange face-to-face teaching practices with digital technologies? What do you perceive as the biggest challenges (lack of digital skills, the problem of adapting the teaching content to the digital environment, student and staff motivation, the quality of digital platforms, the lack of digital resources, unequal position of staff and/or students in the new situation regarding skills, competencies, availability of technology and stable Internet connection, etc.)?

At the initial moment of the beginning of the pandemic, teachers were not sufficiently prepared to make the transition to the online environment, but they quickly understood the need for a change. Some of them had problems with the use of technology, being anchored in the classical methods of teaching and assessment, but in the end, they all managed the situation well.

5. ***If so, have you already initiated discussions and activities in order to regulate/improve every aspect of digital learning at your HE institution***

a) Have you discussed the possibilities of embracing full online/distance learning at your HE with the staff and/or colleagues?

At the moment, the University of Pitesti does not consider the complete transition to full online education beneficial. Also, national legislation does not allow for such a system. Universities must

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respect the percentages imposed by the Romanian Agency for Quality Assurance in Higher Education (ARACIS), which differs from one study programme to another.

b) Have you consulted the teaching staff and/or colleagues about the challenges they encountered with the full transition to online learning?

c) Have you consulted the non-teaching staff and/or colleagues about procedural challenges they encountered with the full transition to online learning

The management of the university constantly discussed with the teaching and non-teaching staff about the difficulties, and tried to support them as much as possible to facilitate the rapid adaptation to the new reality: tutorials for using the eLearning platform; individual training, where appropriate, with people specialised in IT, etc.

d) Have you obtained the opinions and attitudes of students at your institution about their experiences and challenges they encountered with full online learning?

Each faculty asked students for feedback about the online education process and constantly supported them to easily cope with the newly created situation.

6. ***What were the results of those discussions and consultations? Were they beneficial for the next step towards regulating all aspects of digital learning at your HE institution?***

Certainly, these meetings were beneficial for both sides. The management of the university took note of the needs and dissatisfactions of the students, and they were informed about the resources that the university offers and how they can get involved in an online education process.

7. ***In your opinion, what are the biggest challenges when it comes to fully regulating and embracing distance learning at your HE institution and/or in the teaching practice?***

The ability of teachers to adapt their teaching methods to online education.

Students' ability to know how to find and select information relevant to their courses.

8. Please, provide any additional comments you find useful and important when it comes to defining practices, procedures and policies regarding online/distance learning and teaching at HE institutions in general, or at your particular institution.

Improving ways to communicate on the eLearning platform, without another system intervening.

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2.1.2 National Policy Recommendations - Desk Research

eLearning/distance learning has become a popular mode of education in Romania in recent years, especially at the higher education level. The Romanian Ministry of Education has implemented several policies and initiatives to promote and support eLearning in the country.

Distance learning in Romania is organised under Law 1/2011, with subsequent amendments and completions, and based on the order of the Ministry of Education, Research, Youth and Sport no. 6251 from November 19, 2012, for the approval of the Framework Regulation on the organisation, conduct and normalisation of didactic activities in the forms of distance and part-time education at the level of higher education.

Similar to the other Member States, as of March 2020 in Romania the COVID-19 crisis has also been reconfiguring educational practices from face-to-face interaction to the online environment, and the Romanian Government issued an emergency ordinance updating the education law to the new context ORD DE URGENTA 69 26/05/2022 - Portal Legislativ (just.ro).

One of the main policies to regulate eLearning in Romania is the Directive on the Organisation and Functioning of Distance Learning in Higher Education, which was issued by the Ministry of Education in 2001. The directive outlines the principles and requirements for the organisation and functioning of distance learning programmes in higher education institutions, including the establishment of quality assurance systems and the accreditation of distance learning programmes.

Another important policy related to distance learning in Romania is the National Strategy for the Development of Distance Learning in Higher Education, which was developed by the Ministry of Education in collaboration with various stakeholders, in 2015. The strategy aims to provide a framework for the development and implementation of distance learning programmes in higher education institutions in Romania.

The project on quality standards relating to the way teaching, learning, research, practical applications and evaluation activities are carried out in the form of full-time education, using specific electronic, IT and synchronous communications resources and maximum workload of activities in a synchronous online format, differentiated by areas of bachelor, master and doctoral studies - https://www.aracis.ro/modul-mixt/ - was developed by the ARACIS Council and was subject to public scrutiny of stakeholders in two stages. In the first stage, the draft standards were sent to the interested parties (student federations, higher education institutions, university consortia, National Council of Rectors, Ministry of Education, Union of the higher education staff,

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National Authority for Qualifications), to formulate the proposals for amendments. The second phase was held during the consultation session on July 27, 2022.

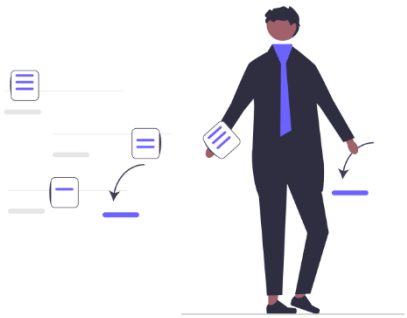
In addition to these policies, the Ministry of Education has also established the National Council for the Accreditation and Equivalence of Diplomas, which is also responsible for the accreditation and recognition of distance learning programmes and qualifications in Romania.

Overall, the Romanian government has demonstrated a commitment to promoting and supporting eLearning at the higher education level, through the development of policies and initiatives that aim to ensure the quality and effectiveness of distance learning programs in the country.

2.1.3 National Policy Recommendations - Implementing the eLearning readiness checklist for HE institutions

The University of Pitesti applied the eLearning readiness checklist for HE institutions to 20 teachers. Among them, 12 are women and 8 are men, between 37 and 63 years of age, and with 10 to 34 years of experience in higher education.

Regarding the answers provided for the Leadership section, the majority of respondents agree that the University of Pitesti has a digitalisation strategy for the educational process. The professors were also involved in the process of establishing the strategy, as well as the companies with which the university collaborates. At the same time, teachers respect the rules regarding copyright and information protection, according to the provisions in force.



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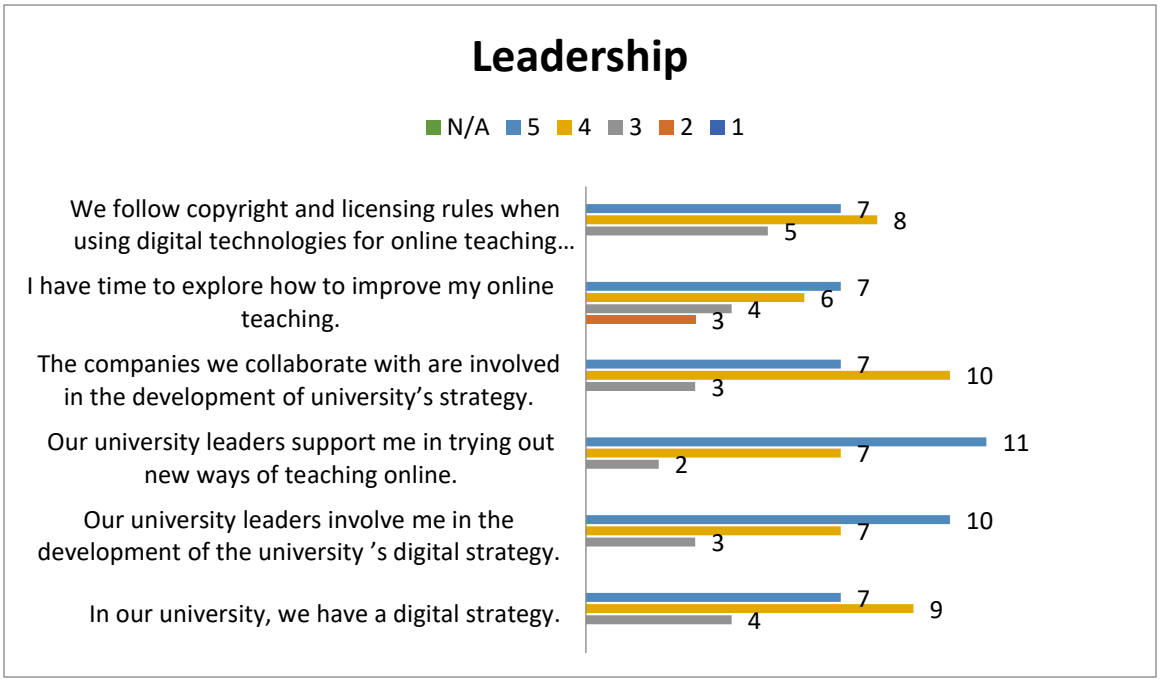
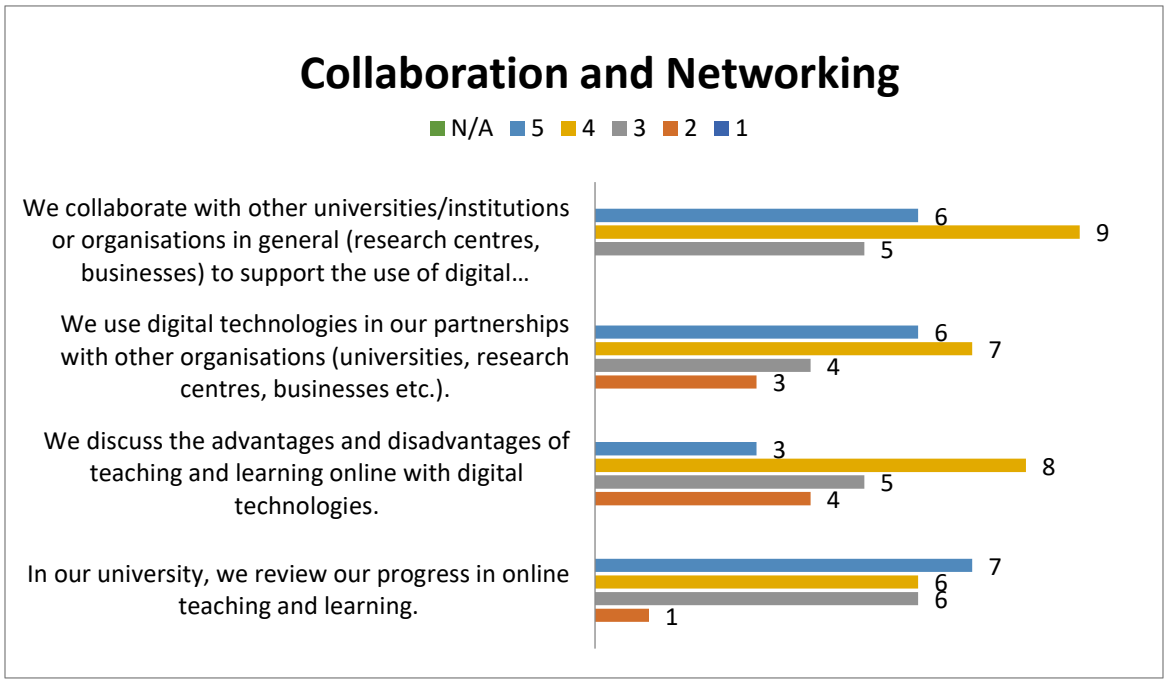


Moreover, at the University professors are progressively revising their teaching, and discussing the advantages and disadvantages of online teaching with the help of digital tools. At the same time, collaborations with other institutions, regardless of their type, are characterised by the use of various digital tools, as an exchange of best practices and continuous improvement.



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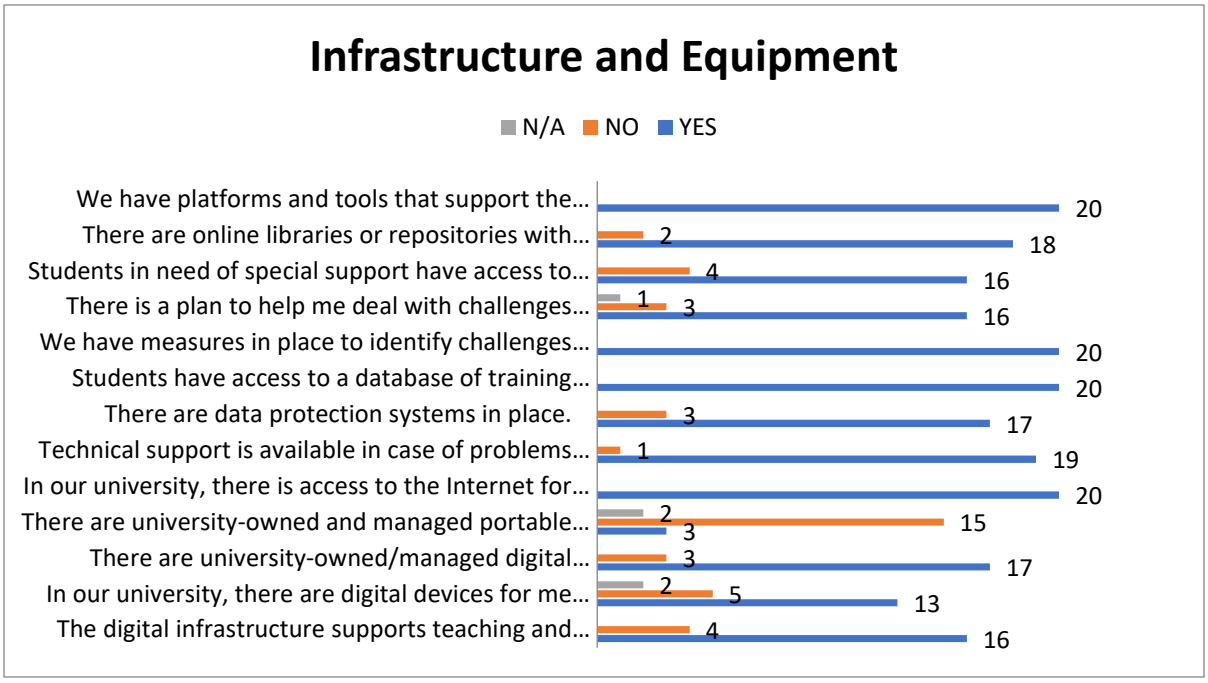
The existing infrastructure and equipment at the University of Pitesti are considered to be fine support in the implementation of online education. The UPIT has digital devices that can be used by teachers and students alike. Facilities include an Internet connection, data protection systems, specialised online platforms, a digital library, and a database listing various training courses. At the same time, teachers and students were asked about the challenges they faced during online education and were supported by the management of the institution to easily adapt to the challenges. Thus, the didactic process was hardly altered at all by the transition from face-to-face to online.



Continuous professional training is one of the main pillars of the educational process at the University of Pitesti. Teachers are motivated and interested in participating in various training courses, both nationally and internationally. They aim to improve the quality of the educational process and to open new perspectives for teachers regarding the advantages of using digital tools in teaching and assessment. Also, teachers have the opportunity to exchange experiences with colleagues in other partner institutions, where they can go and share their knowledge. The university does not neglect the participation of teachers in online workshops, both on digitalisation topics and on topics related to modern teaching and evaluation methods.

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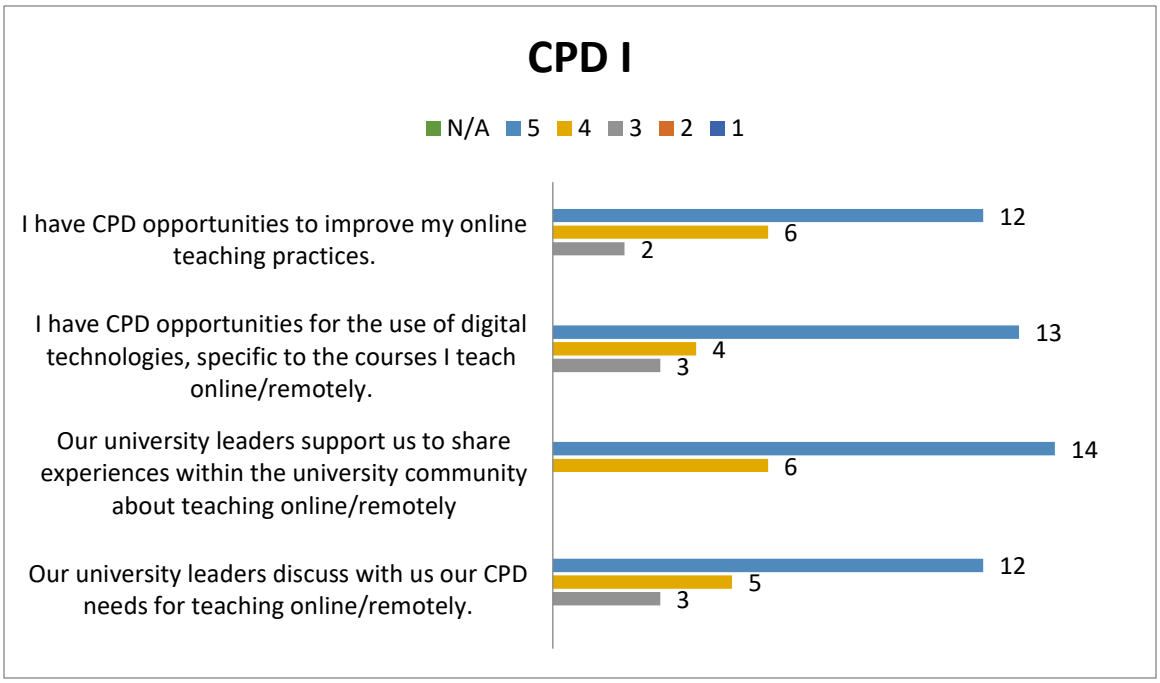

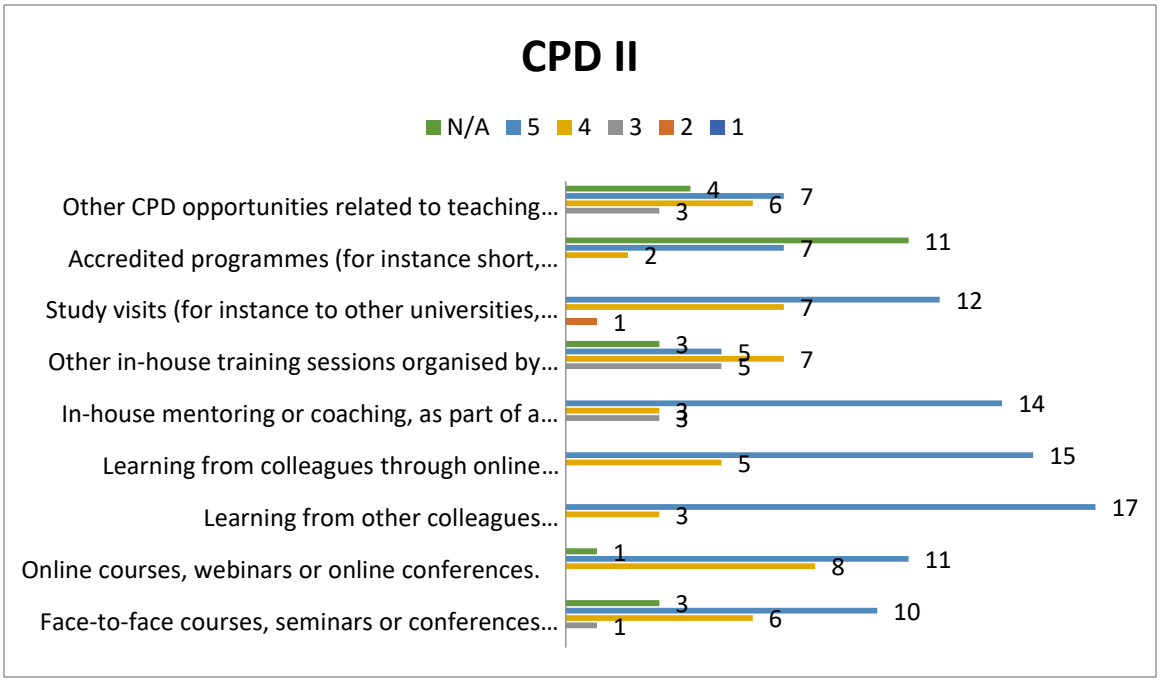

Thus, quality teaching and learning is one of the university's most important priorities. In the courses that professors offer to students, they include digital resources that they find online.

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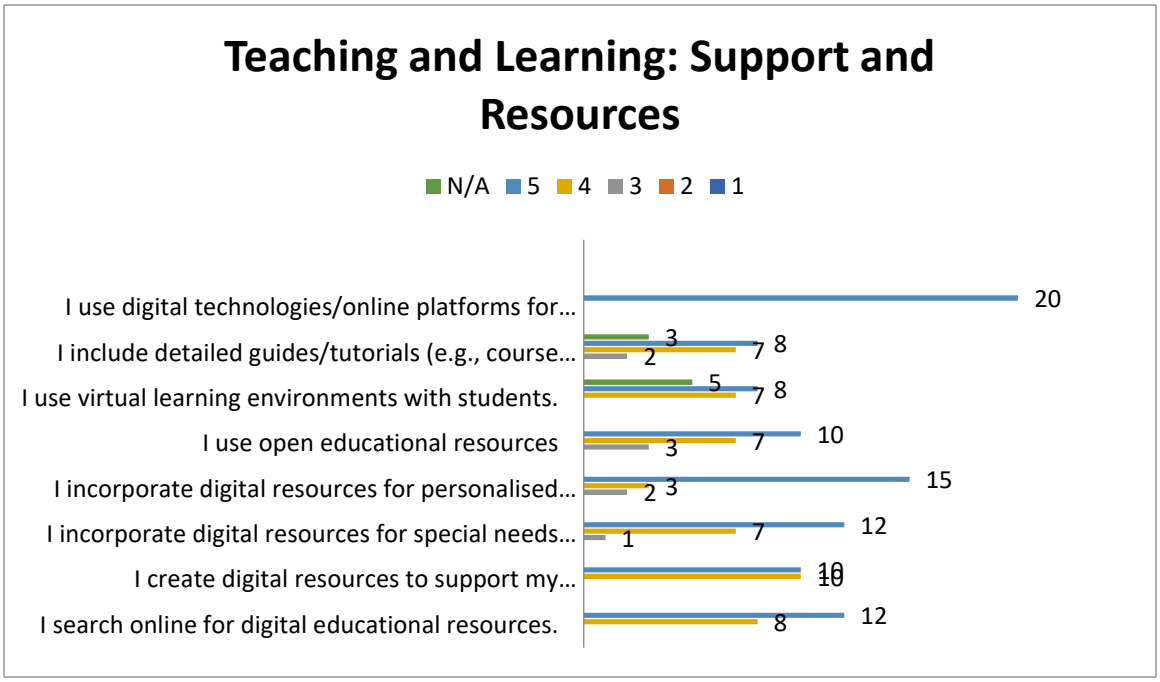
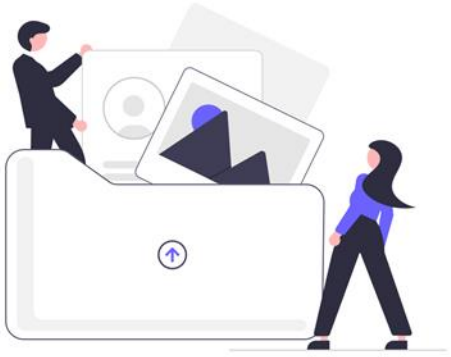
Special attention is paid to students with special needs, whom teachers try to provide with adapted teaching materials. Open educational resources and online learning platforms are also used in the teaching and learning process. Students receive tutorials to facilitate their access to online learning and better acquisition of knowledge.



The University of Pitesti promotes an environment where students' creativity is appreciated and supported. Collaboration between students and their active involvement in teaching and learning is constantly happening, with teachers trying to create courses that are as engaging as possible, even when conducted online. Professors also continue to advise students on career guidance.



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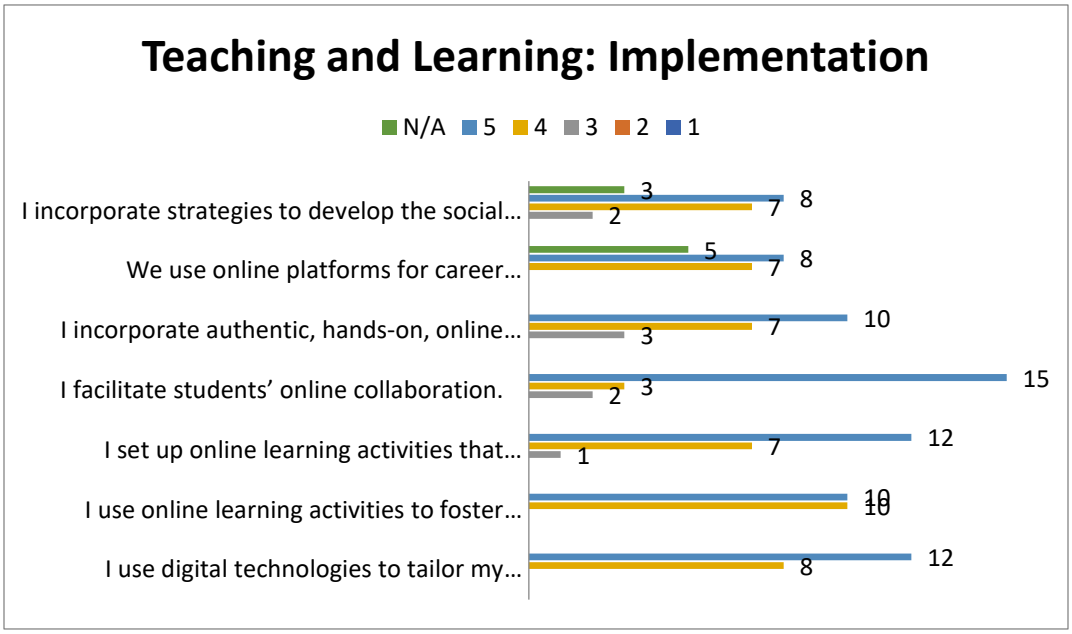
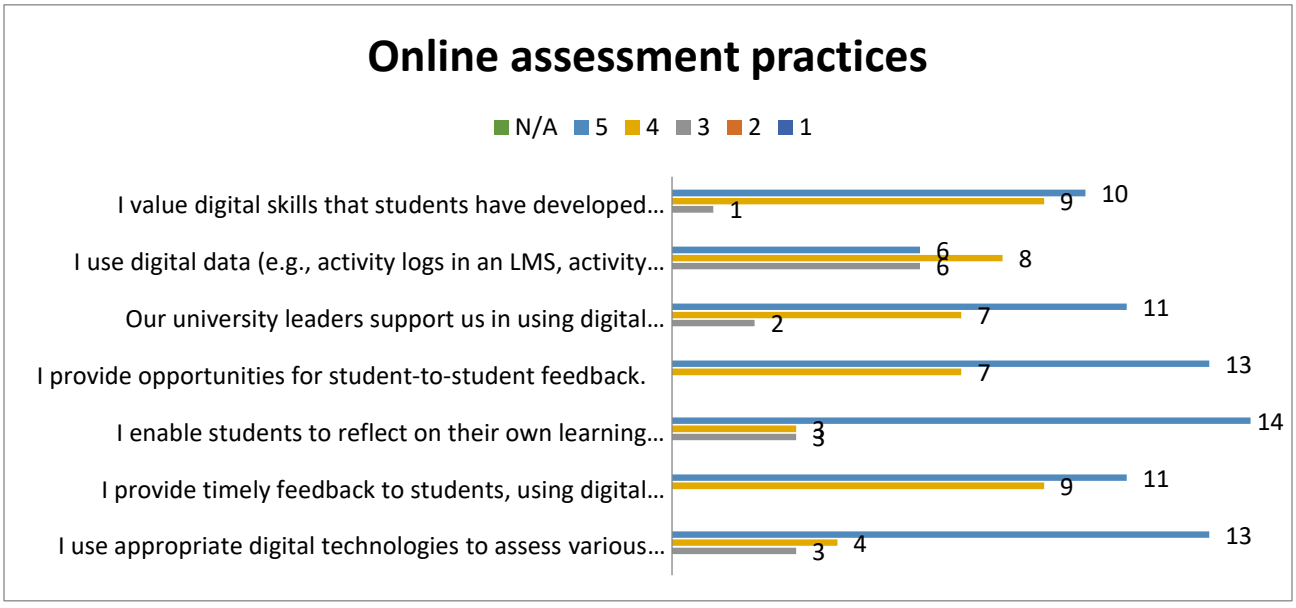


Student assessment has also gone through a digitisation process, owing to online tools used by teachers. They were able to reflect on the knowledge gained and the mistakes made during the online tests and received feedback from the teachers to know what aspects need to be improved. The university management also supports the use of online assessment tools, which improve the digital skills of teachers and students alike.



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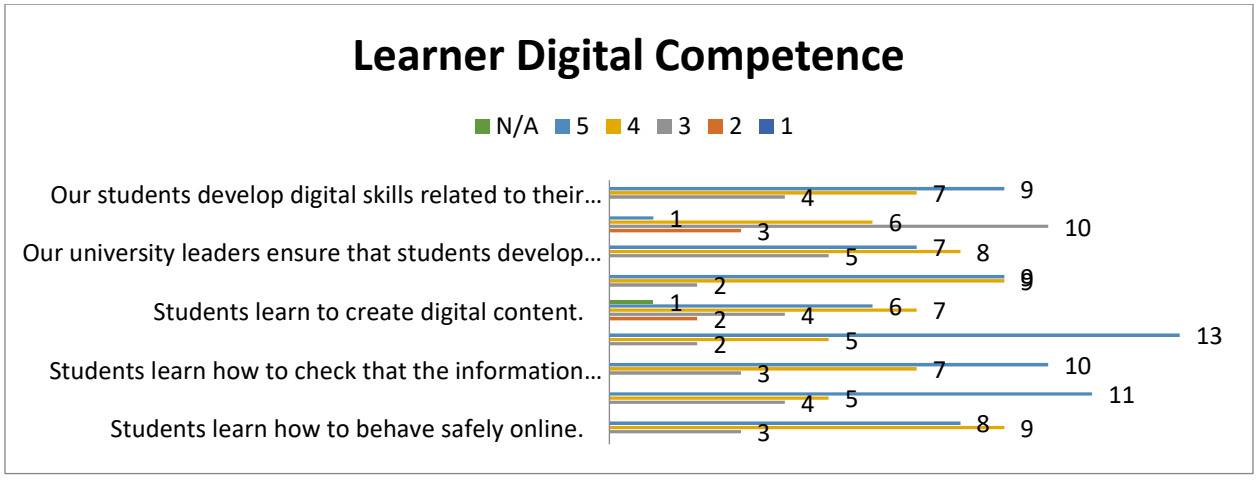
Moreover, the development of students' digital skills is a central point of online education. At the same time, students learned how to be safe online, how to properly cite sources from which they draw information, how to create digital content, and how to solve technical problems when they come across them.



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2.2 Cyprus

2.2.1 National Policy Recommendations - Interviews

The following key thematic areas, with respective topics, emerged through the thematic analysis of the interviews (Table 1). The data was anonymised for privacy issues.

Table 1. Thematic areas and corresponding topics from thematic analysis of interviews' data.

Thematic areas	**Topics**
Existing Strategies	Lack of strategies for all
	Transition
Response and challenges	Skill gaps
	Lack of time
	Lack of resources
	Assessment procedure
Next steps and future practices	Full adoption of distance learning
	Review, Evaluation and Action Plan
	Digital strategy systemic plan
	Exchange of best practices

Existing strategies

Lack of strategies for all: Strategies were not in place for remote teaching of all programmes. Accrediting online courses had already been difficult. Some universities were offering Master´s programmes fully online. Those courses continued their smooth implementation.

Transition: Since most universities offered distance courses (e.g., postgraduate), the transition into online teaching, during the pandemic, was not difficult or at least it took place faster (e.g., universities were already using a Learning Management System, students were capable of

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logging into the digital tools). The Ministry directed toward and accepted the online learning application.

Response and challenges

Skill gaps: There were gaps in skills and/or unequal competence levels relating to teachers and students. Firstly, most teachers did not know what distance learning was. For example, not all teachers were teachers of postgraduate distance learning courses. In response to that, at the education stakeholder interviewee's University, a basic guide for the web conferencing tool adopted (Webex) was distributed. The teachers learned the basic features of the tool (e.g., how to share the screen), just to deliver their traditional lectures. They did not know that it was possible to promote interactive group work, collaboration, etc. (e.g., with breakout rooms). As a result, student-centred approaches were not followed. Not all courses were also designed and hosted in advance in the Learning Management System (i.e., the MOODLE) which the university was already using, up to that point. Even the courses for which material was uploaded online before (e.g., as additional material to face-to-face teaching) had to be redesigned for fully online teaching. The redesign was also crucial for the practical courses. For example, a face-to-face course in the Department of Education which aimed to present pre-service teachers with educational technology tools in person had to be adapted and include online digital tools for these students, presented online. Thus, laboratory courses faced some problems and needed adaptations, as in all courses, in terms of content and presentation.

Lack of time: There was not enough time for participants to familiarise themselves and/or develop the relevant competencies. For example, time to collect resources and design the course for the online environment. The same goes for the students, who eventually started on their own, experimenting, posing questions to teachers and gradually becoming more competent and familiar.

Lack of resources. Up to that point, no one was globally prepared for online teaching. There were no adequate and well-built quality repositories (e.g., nationally) to help with the transition. On the contrary, a plethora of resources and best practices are now available to anyone interested.

*Assessment***:** adaptations were crucial since face-to-face exams were not possible (this was also true for the master courses). An alternative assessment was chosen, such as scenario-based exams to ensure the validity and reliability of the results. In addition, each instructor had to organise one-on-one discussions with their students, as an authentication or validation process (ask clarification questions and verify that they were the ones who completed the relevant exam

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paper). The assessment instructions were given by the academic affairs unit of the University and the CYQAA.

Next steps and future practices

Full adoption of distance learning: Online teaching for all courses will be difficult and it is currently not foreseen. Most undergraduate courses have practical experience courses such as practicum training in their field. It would be possible to do that online, using emerging technologies (e.g., VR, AR, MR) with simulations of training, and virtual labs, depending on the subject, but this requires planning, training, and financial support to be used widely and replace existing face-to-face courses. Alternatively, online learning for practical courses could be used as a supplement, to enhance students' skills.

Review, Evaluation, Action Plan: Evaluation took place individually by each teacher/researcher to review the progress (there was no official evaluation conducted). However, online teaching, to be universally integrated, needs to go through design, piloting and feedback stages, to validate its implementation. A bottom-up collective action is required. First, a common questionnaire/ evaluation tool could be distributed to all universities in the country to collect nationwide data on the implementation of online teaching and learning. This will lead to the identification of the specific challenges and requirements each university faces (e.g., lack of infrastructure, etc.). A SWOT analysis for HEIs could also be applied. Based on the basic pillars that will emerge, an interdisciplinary team (of researchers, academics, policymakers, advisors, and support staff) can be formed to transform all lessons learned into best practice guidelines and distribute this to each institution (this can be adapted and personalised by European/international standards that exist). The technical and training teams in each institution will then be responsible for developing the competencies of students and staff, considering the gap in acquired skills (information relevant to their needs). This also includes catering for data protection.

"A SWOT analysis, adapted to fit the context of Universities [is important], for them to know on what competence levels they are and what level they need to reach"

- *Education stakeholder*

Digital strategy systemic plan: In Cyprus, there is long-term planning for digital education, in general, with an advisory body of experts. Open public discussions have already started. For example, last year in November 2021, the Cyprus Education Summit was organised, focused

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specifically on digital transformation, with debates on the next steps. Also, research results have been gathered and communicated to the Ministry. It might be difficult to legally regulate all aspects; we need to focus on those that are key for future implementation. Specifically, there are three elements to consider: collectiveness (collaboration among the state, the Ministry, the HEIs, the researchers, the academics and the student groups, forming committees with representatives of all parties), systemic applications (to consider all aspects such as infrastructure, teaching and learning, assessment adaptations, constant monitoring, accreditation, accessibility of all with support and inclusion measures for the marginalised groups), and training of all involved such as staff, students, decision-makers. A special focus on accessibility and usability is crucial.

"We cannot assume that students are digitally competent"

- *Policymaker*

Exchange of best practices: This can be both official and university-specific, within the communities of practice. Staff-to-staff exchange of ideas happened during the pandemic (e.g., more competent instructors, especially from the Educational Technology field, shared ideas on which tools to use, tutorials on specific tools, and comprehensive guide with tools). A repository of Open Educational Resources can be created from each university to host the resources needed for future implementation.

2.2.2 National Policy Recommendations - Desk Research

In the Republic of Cyprus, the public education system is centralised. The Ministry of Education, Culture, Sports and Youth (MECSY) is the agent body responsible for the educational policy. There are four levels of education:

- The pre-primary level is for 4 to 5 years old children. It is compulsory and offered by public and private kindergartens.
- The primary level is for 5 to 11 years old children. It is compulsory and it lasts for six years.
- Secondary education consists of two cycles: lower secondary (compulsory for teenagers aged 12 to 14 and it lasts for three years) and upper secondary (optional for teenagers aged 15 to 17 for another three years). In the second cycle, there are two options: to attend either general or technical, vocational education.

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- Higher education where public and private institutions offer Bachelor, Master or PhD degrees. There are currently 3 public and 7 private Universities and 50 Institutions of Tertiary Education (5 public and 45 private institutions, as reported by the Ministry of Education, Sports and Youth (2021) for the academic year 2020/2021. The first cycle for the bachelor's degree lasts for 4 years (240 ECTS), the second cycle for the master's degree lasts for about 1 to 2 years (90-120 ECTS), and the third cycle for a PhD lasts between 3 and 8 years (minimum of 3 years)

In the mapping study of the Ministry of Education, Sports and Youth (2021) for the academic year 2020/2021, the total number of students enrolled in HE was 54.235, out of which 42.519 (78%) attended universities and 11.716 (22%) institutions of tertiary education. Most students attended private universities. At private universities, more students (52%) attended online than face-to-face study programmes, whereas at public universities most students (76%) attended face-to-face study programmes (Fig. 1).

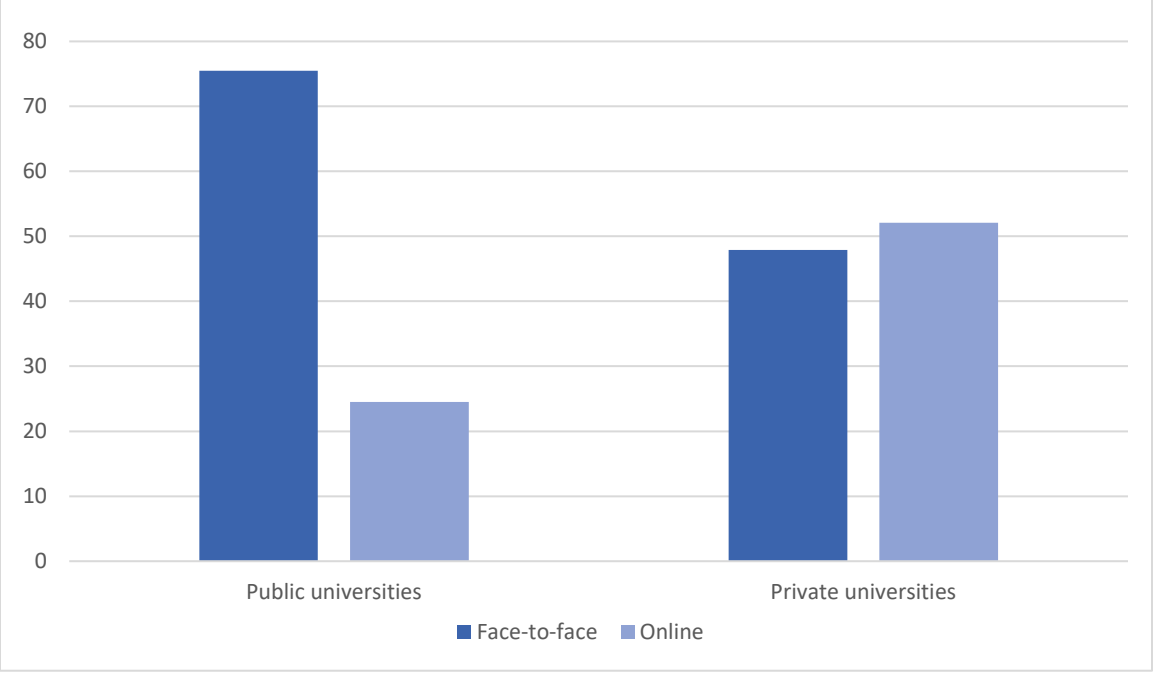

Figure 1. A number of students who attended face-to-face and online courses in public and private Cypriot Universities (Ministry of Education, Sports and Youth, 2021).

In the Republic of Cyprus, e-learning initiatives have been implemented even before the pandemic. The national regulations support the improvement of the educational process effectiveness by directing universities towards a) the application of innovative teaching methods in line with ICT advancement and the open and distance education models, b) the research of new teaching methods as applied within the European Union for full alignments with the

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educational policy within that context. CYQAA (the Cyprus Agency for Quality Assurance and Accreditation in Higher Education) is responsible for international and transnational evaluations within institutions, departments and programmes in Higher Education for accreditation from Agencies registered in the European Quality Assurance Register (EQAR). Its vision is to promote research and development in Cyprus while its mission is to ensure alignment with European standards and guidelines for quality assurance (ESG) (CYQAA, n.d.). There are guidelines for quality assurance in both face-to-face and online contexts. The CYQAA follows and requires the application of the following types of quality assurance methods and evaluations:

- Internal Evaluation of the quality, implemented by each University, consisting of a systematic collection of administrative data, completion of questionnaires by students, alumni and interviews with staff and faculty
- External Evaluation of the quality of the institution, department or programme
- Quality Accreditation upon completion of the external evaluation

The CYQAA set the following three criteria which a university is required to fulfil to offer distance learning programmes:

a) has the required educational infrastructure for distance learning/teaching

b) offers the required, adequate support to its students

c) ensures that the assessment method of the students is reliable

For the accreditation of Distance Learning study programmes, the required criteria and quality indicators, as reported on their website, are the following

1. Establishment of a Pedagogical Planning Unit for distance learning, which will be responsible for the support of the Distance Learning Unit and will address the requirements for study materials, interactive activities and formative assessment following international standards.

2. Stipulating feedback processes for students concerning written assignments.

3. Specific plan to ensure student interaction with each other, with the teaching staff, and with the study material.

4. Development of teacher training programmes focusing on interaction and the specificities of distance learning.

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5. A complete assessment framework design, focusing on distance learning methodology, including clearly defined evaluation criteria for student assignments and the final examination.

6. Plan a set number of expected teleconferences for presentations, discussion and question-answer sessions, and guidance.

7. Development of a Study Guide for each course, fully aligned with distance learning methodology and the need for student interaction with the material. The study guide also includes, for each course week/module, the following:

7.1.1 Clearly defined objectives and expected learning outcomes of the programme, the modules and activities in an organised and coherent manner

7.1.2 Presentation of course material, every week, in a variety of ways and means (e.g. printed material, electronic material, teleconferencing, multimedia)

7.1.3 Weekly outline of set activities and exercises and clear instructions for creating posts, discussion, and feedback.

7.1.4 Self-assessment exercises and self-correction guide.

7.1.5 Bibliographic references and suggestions for further study.

7.1.6 Number of assignments/papers and their topics, along with instructions and additional study material

7.1.7 Synopsis

To dive deeper into the exact strategies followed by the HEIs in the Republic of Cyprus, we examined the resources provided by the individual Distance Learning Units. This refers to any plan or report that documents the aspects of distance learning each institution considers for effective delivery (e-Learning Pedagogical Support Unit, UNIC, 2019). These are any quality assurance processes followed in line with the CYQAA's recommendations. Combining the data through thematic analysis, we coded them into the following categories:

- Pedagogical framework or model
- Course design
- Student assessment
- Course evaluation
- Support to students and faculty

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- Faculty professional development

Pedagogical framework or model

A pedagogical framework or model, adapted from existing literature or created from scratch, underpins the development of distance education courses. Two illustrative examples are the University of Nicosia (UNIC) and Frederick University. In the first case, UNIC's pedagogical model for e-learning is based on shared and commonly accepted definitions for e-learning and pedagogical models. Guidelines and publications from QA bodies are taken into account – either national such as the CYQAA or European such as the ENQA (European Association for Quality Assurance in Higher Education), ESG and EADTU European Association of Distance Teaching Universities). A framework for 21st-century skills is adopted (e.g., scientific and technological literacy, problem solving, critical thinking, metacognition, ability to work collaboratively, think creatively, and synthesize information). The pedagogical models adopted are brain-based approaches to learning with elements from the Multimodal Distributed Learning Model (Dabbagh, 2005) and Laurillard's (2002) Conversational Learning Model. The promotion of interactivity, metacognition, relevance and authentic assessment is of utmost importance. Regarding Frederick's pedagogical framework, it consists of three elements: Directed Learning Online (Learning activities) with mandatory and supplementary content, Dynamic Online Interaction (Learning activities), and Assessment Activities (Formative, Summative, and Self-assessment).

Course design

This refers to decisions regarding the duration of courses, class sizes, the people responsible for the course design (e.g., course leaders, programme coordinators) –setting learning objectives and outcomes, making decisions on the learning material and communication methods online – the organisation of relevant documents, the establishment of interactivity, and the modes of course delivery (synchronous, asynchronous, potential face-to-face meetings). A Learning Management System (e.g., MOODLE, e-class, Blackboard) supports asynchronous communication and web teleconferencing tools (e.g., WebEx) synchronous communication (e.g., virtual sessions, webinars, and livestreaming).

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Student Assessment

This includes formative (e.g., self-assessment quizzes) and summative practices (e.g., various assignments throughout the semester upon completion of topics/units, and final exams). When it comes to assessment, we need to ensure that feedback is promptly given by the teacher (e.g., online office hours, emails, messages, posts), or the tools automatically. For integrity, reliability and trustworthiness purposes, universities organise face-to-face final examinations, in centres across Cyprus, Greece or other countries, depending on the student population's origins. In the case of emergency remote teaching (e.g., in COVID-19) examinations were conducted remotely.

Course evaluation

Course evaluation includes using technology tools to gather students' opinions (e.g., feedback feature in Moodle for anonymous informal student surveys) or questionnaires to measure students' satisfaction regarding specific aspects of the course (e.g., material, faculty, technology tools and platform, library services, support). The evaluation may include using learning analytics in the LMS (e.g., participation in the platform, the activities, and assignments, feedback, use of tools and materials, etc.). This helps to improve the infrastructure and the processes, the teaching methods, the resources, the environment, and the educational content, and to achieve proper integration of Information and Communication Technologies (ICT).

Support

Support is provided to both students and teachers. Technical teams responsible specifically for distance education are in place. Additional guides (e.g., helpdesks, video tutorials or virtual tours for the LMS) are given. There is also support for Special Education Needs (SEN) students

Faculty Support is both pedagogical and technical. Pedagogical support is offered through professional development (e.g., workshops, webinars, training) by dedicated units (teams of experts, academics in the field), advisory teams and centres. Relevant training seminars can offer certificates related to the development of pedagogical and technical skills (e.g., design and develop eLearning material).

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A case study from remote teaching period, the University of Nicosia

To handle the disruption of learning and transition to a fully online mode, the University of Nicosia agreed on a Contingency Academic Plan. Among others, the plan directed to the following practices (Pouyioutas, 2021):

- Seamless transfer of face-to-face operations into an online context
- Preparation of teaching, academic staff, and learning
- Adaptations of teaching material and transfer to the university's Moodle LMS (used for Distance Learning programmes or the inhouse developed LMS)
- Constant communication with learners (synchronous/asynchronous mode)
- Face-to-face and/or online training for the staff
- Learners' acquaintance with the LMS, accessing the material, communication procedures, etc.
- 2-hour videoconference training seminars (two in English and two in Greek) for the students (to be available on-demand) for discussion on academic issues and training
- Extensions for the submission of student assignments
- Selecting and integrating online tools for group work or replacement of group work with individual work
- Incorporation of alternative assessment

The main challenges related to digital inclusion: all participants needed the skills and access to reliable equipment and devices. Then, the design implementation of appropriate assessment was needed, following evidence-based authentication procedures. Along with that, data protection and privacy issues should be considered (e.g., when using proctoring software), getting students' written permission. In contrast, alternative assessment methods should be in place. Finally, laboratory and practical field courses need to be arranged for face-to-face implementation.

The University responded well to the transition, especially in the months that followed the first disruption due to the development of an action plan. From the lessons learned, it is evident that blended learning will be profoundly implemented in the post-pandemic era. As a result, having

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an action plan for continuity is marked as imperative, involving crucial stakeholders such as policymakers and decision-makers.

2.2.3 National Policy Recommendations - Implementing the eLearning readiness checklist for HE institutions

This section presents the results from the online questionnaire. The results are divided into subsections, based on the topics covered in the questionnaire.

Leadership

Leadership presents neutral results. On the one hand, about half of the respondents claimed that their university had a digital strategy (57.1%) and that leaders had developed this strategy in collaboration with the instructors (42.9%) (Fig. 2). On the other hand, on average the respondents stated that the instructors were supported most of the time (M= 4.15), but they occasionally had time to improve (Table 2). In many cases, the standard deviation is high, indicating that the respondents' answers varied.

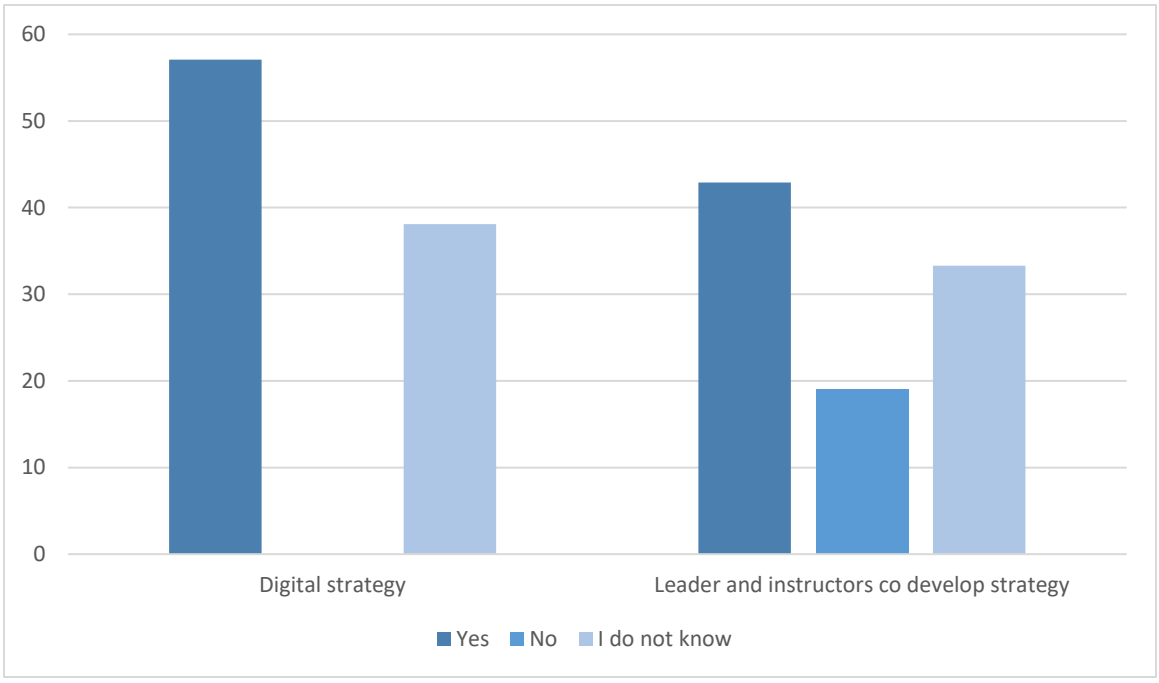

Figure 2. Percentage of responses regarding the existence of digital strategy and collaboration to co-develop a strategy.

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Table 2. Mean and standard deviation for responses regarding leadership tactics

	N	Mean	Std. Deviation
Instructors' support	20	4.15	0.67
Collab. companies involved in strategy	20	3.40	1.19
Instructors have time to improve	20	3.25	1.21
Follow copyright and licensing for digital technologies	20	4.20	1.01

Collaboration and Networking

Collaboration and networking also present a neutral stance but a satisfactory image (Table 3). Specifically, the respondents on average reported that they very frequently (M=4.35) used digital technologies in their partnerships with other organisations (universities, research centres, businesses etc.). Similarly, they collaborated very frequently (M=3.95) with other stakeholders (such as universities/institutions, research centres, and businesses) to support the use of digital technologies. In most cases, the standard deviation is high, showing the mixed responses documented.

Table 3. Mean and standard deviation for responses regarding collaboration and networking tactics

	N	Mean	Std. Deviation
Review of teaching and learning progress	20	3.70	1.06
Discuss (dis)advantages	20	3.65	1.30
Digital technologies in partnerships	20	4.35	1.42
Collaboration with other stakeholders for digital technologies	20	3.95	0.99

Infrastructure and Equipment

The infrastructure and equipment present a satisfactory image (Fig. 3). Specifically, all respondents claimed that there were platforms and tools for delivering and supporting online teaching, as well as electronic libraries, repositories, databases, a dedicated technical team, and

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an Internet connection on the premises. Interestingly enough, half of the respondents (52.4%) did not know whether there were digital tools for students to take home or assistive technologies for students in need (42.9%).

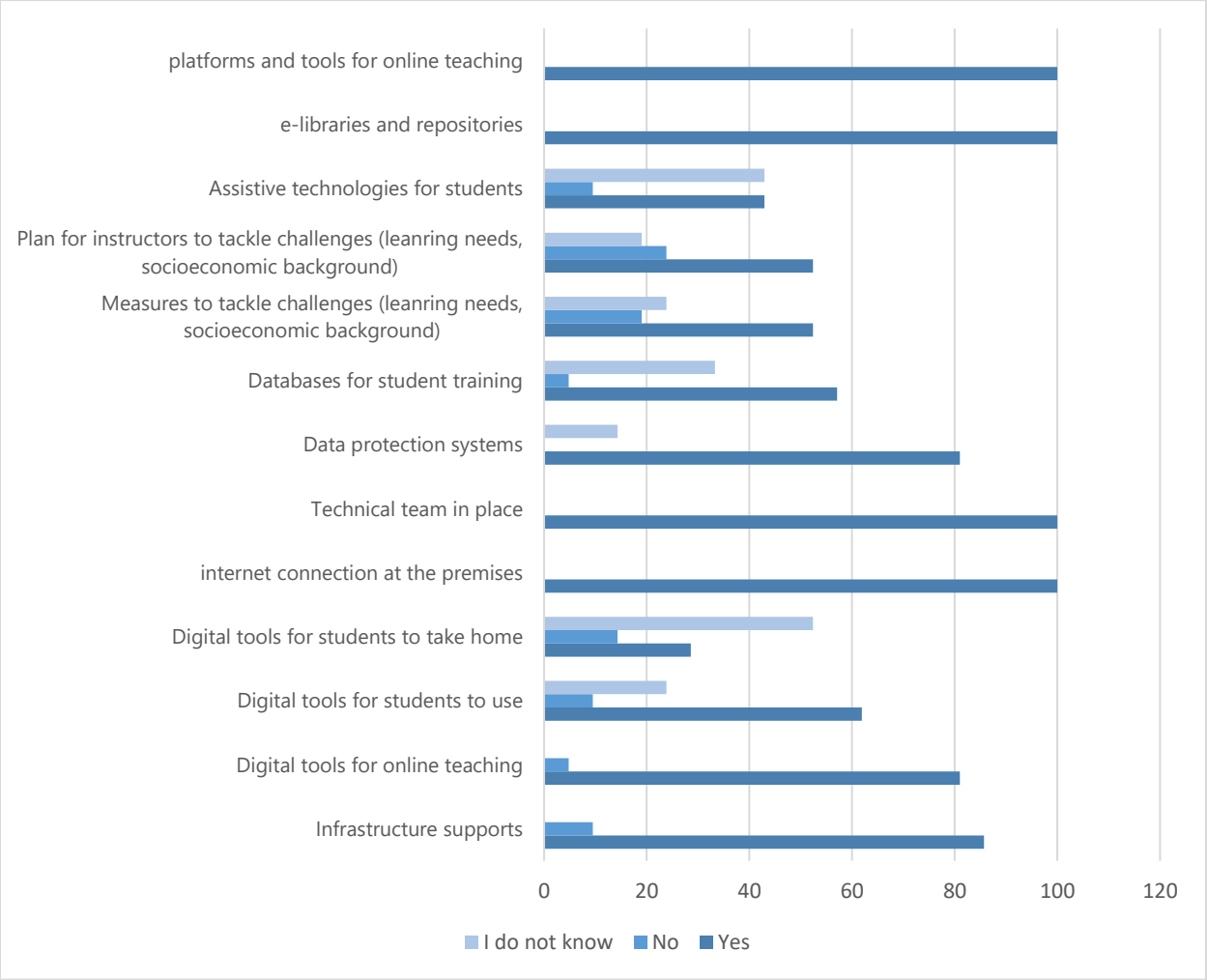

Figure 3. Percentage of infrastructure and equipment support offered

Continuing Professional Development (CPD) [1]

Regarding continuing professional development opportunities, the results are promising (Table 4). On average, the sample stated that instructors discussed their CPD needs for teaching online/remotely very frequently (M=3.70) and also very frequently (M=3.90) received such training to improve their online teaching practices. However, again the responses varied a lot.

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Table 4. Mean and standard deviation for responses regarding continuing professional development tactics

	N	Mean	Std. Deviation
Discussion for CPD	20	3.70	0.92
Share experiences within univ. community	20	3.80	1.20
CPD for a specific subject	20	3.85	1.09
CPD to improve online teaching	20	3.90	1.02

Teaching and Learning: Support and Resources [2]

Regarding the resources used for teaching and learning (Table 5), the responses show that, on average, the instructors searched online for digital educational resources, included detailed guides/tutorials and used digital technologies/online platforms for university-related communication very frequently (*M=4.30*, *M=4.40* and *M=4.30,* respectively). The results are more neutral, though, about how often they used digital resources for learners with special needs (*M=3.60*) and personalised learning (*M=3.55*) where the responses state that it happened frequently, but respondents' opinions vary a lot.

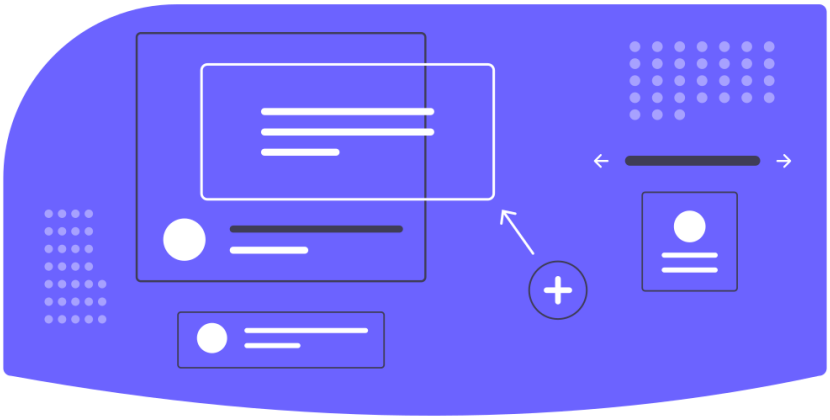

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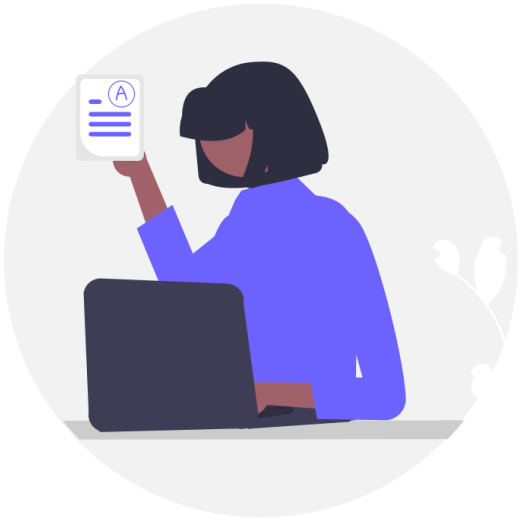
Table 5. Mean and standard deviation for responses regarding support and resources for teaching and learning

	N	Mean	Std. Deviation
Search online for digital educational resources	20	4.30	0.87
Create digital resources	20	4.05	0.95
Digital resources for special needs	20	3.60	1.14
Digital resources for personalised learning	20	3.55	1.05
Use open educational resources	20	4.15	0.67
Use virtual learning environments with students	20	3.70	1.17
Include detailed guides/tutorials	20	4.40	0.75
Use digital technologies/online platforms for university-related communication	20	4.30	0.92



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Teaching and Learning: Implementation

Regarding teaching and learning per se, the respondents, on average, reported that the instructors facilitated students' online collaboration very frequently (M=4.05). Also, on average, the instructors frequently set up hands-on activities (M=3.80), fostered creativity (M=3.75) and promoted engagement (M=3.75).

Table 6. Mean and standard deviation for responses regarding teaching and learning implementation

	N	Mean	Std. Deviation
Use digital technologies to tailor to individual needs	20	3.65	1.09
Use activities that foster creativity	20	3.75	0.91
Use activities that engage	20	3.75	0.97
Facilitate students' online collaboration	20	4.05	0.89
Incorporate authentic activities	20	3.80	0.89
Use platforms for career counselling/guidance	20	3.60	1.23
Strategies to develop the social presence	20	3.60	1.14

Online assessment practices

When it comes to online assessment, the findings show potential since, on average, the instructors very frequently provided timely feedback (M=4.20), allowed students to reflect (M=4.00), included various assessment types (such as formative, summative) (M=4.10), and promoted student to student feedback exchange (M=3.95). The results are more neutral for the activity tracking, showing that they used digital data from individual students to improve their learning experience occasionally (M=3.55).

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Table 7. Mean and standard deviation for responses regarding teaching and learning implementation

	N	Mean	Std. Deviation
Digital technologies to assess various students' skills	20	3.85	1.14
Timely feedback	20	4.20	0.77
Students reflect	20	4.00	0.92
Peer feedback	20	3.95	1.10
Various assessment types	20	4.10	0.85
Use of digital data	20	3.55	1.00
Value digital skills that students have developed outside of university	20	3.75	1.12

Learner Digital Competence

As far as students' digital competence is concerned, the results are somewhat the same, indicating a more neutral position. On average the respondents reported that the students learned various digital skills (e.g., safe and responsible behaviour, checking the quality of information, giving attribution, creating digital content etc.) occasionally, as the results are between 3 to 4.

Table 8. Mean and standard deviation for responses regarding which digital competencies learners develop

	N	Mean	Std. Deviation
Safe behaviour	20	3.60	1.19
Responsible behaviour	20	3.55	1.01
Checking quality of information	20	3.70	1.08
Giving credit to others' work	20	3.65	1.18
Creating digital content	20	3.60	1.14
Learning to communicate	20	3.85	0.93
Digital skills across subject areas/fields of study	20	3.50	1.05
Solving technical problems	20	3.10	1.25
Skills for academic qualification	20	3.55	1.05

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Continuing Professional Development (CPD) [2]

Finally, the sample was asked whether they have participated in CPD activities over the last year, related to the pedagogical use of new technologies for online teaching. The results show that half did, and half did not. Those who did, on average found especially useful online professional learning, learning through collaboration and professional networks and in-house training.

Table 9. The mean and standard deviation for respondents' satisfaction regarding the CPD opportunities they attended

	N	Mean	Std. Deviation
Face-to-face professional learning	10	3.90	0.88
Online professional learning	14	4.29	0.73
Learning through collaboration	13	4.69	0.63
Learning through professional networks	12	4.42	0.79
In-house mentoring/coaching	11	3.82	1.08
Other in-house training	10	4.20	0.79
Study visits	9	3.67	1.22
Accredited programmes	9	3.67	1.00
Other CPD opportunities	9	4.00	0.71

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2.3 Lithuania

2.3.1 National Policy Recommendations – Interviews

eLearning strategies or regulations

The development of eLearning was significantly influenced by the establishment of the Lithuanian Association of Distance Learning (1999) as part of projects supported by the government and the European Union. Since then, the country's largest universities have had a full infrastructure for eLearning. The COVID-19 pandemic period showed that the complicated situation remains in colleges or general education schools (insufficient infrastructure, lack of documentation and experience).

Firstly, many higher education institutions have dedicated departments responsible for IT infrastructure, staff guidance or training on particular topics. Secondly, higher education institutions (not all of them) have procedures for organising eLearning and defending final theses within the scope of distance learning.

During the pandemic, a special COVID link was added to the websites of higher education institutions to guide them on how to study and work remotely, and which tools to use. The information has been or is being made available to staff on the intranet by some universities.

Transition to fully online learning and teaching

Universities had already been offering certain distance study programmes, but the transition to full online learning and teaching was a challenge for many institutions, and an opportunity for others to upgrade. For example, teachers were able to review and update teaching materials and resources. For those who were less familiar with eLearning and its possibilities, more time and skills were needed to prepare.

eLearning has not only changed the infrastructure of institutions, teaching and learning methods but has also influenced the study environment and atmosphere. It was noted that during the early years of the pandemic, students' motivation to study online was high, but “tiredness” appeared afterwards, while a lack of face-to-face contact created difficulties. A similar trend has been observed in the teaching environment as well.

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Skills and competences

In the beginning, there was a lack of skills in using specialised tools and video conferencing software. For example, most of the teachers had to overcome their fear of being filmed, learn how to use the software and learn how to speak like a professional in front of a camera. The study material was stored in the Moodle virtual learning environment before the COVID-19 pandemic, so teachers had to rethink the structure of courses when they moved to fully online teaching. The biggest challenge was, for example, noted with the courses of chemistry or physics, where students have to do experiments to see how something works.

Challenges

One of the main challenges was how to implement laboratory exercises, which require specialised software and are not always accessible from home. For example, the Kaunas University of Technology has a strong focus on virtual reality solutions.

Another challenge was academic integrity, a more complex issue with distance education. However, various tools have been recommended to ensure academic integrity, and training has been provided on how to manage student assessment and evaluation successfully.

eLearning is more challenging, requires more competencies and motivation, and influences teaching and learning outcomes and the quality of teaching. Teaching in a lecture room creates certain habits that are difficult to transfer to the virtual environment. As a result, sometimes the quality of the course delivered is lower due to certain changes and difficulties. Although it has been often pointed out that students or teachers lack the skills to use the particular tool, their skills and abilities are very high. A bigger problem is as follows: how to choose the right tool and how to motivate them or keep them motivated.

Best practice

eLearning is the opportunity to prepare the structured material and sources and reduce workload. During the pandemic, more attention was paid to the training of teachers, sharing of best practices, and demonstration of real-life examples by transferring the content to the virtual learning environment. Teachers have increased their experience of using different digital tools, gained more confidence and experimented more. While face-to-face learning is preferred in universities, some elements of eLearning have been retained or used more since the pandemic:

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assignments, assessments, videos of theoretical lectures in the virtual learning environment, and online tutorials. Blended learning is implemented more widely.

Future plans

Cybersecurity is a key issue for all institutions to consider. Each institution has the responsibility to ensure the security of systems.

eLearning offers more flexibility in the study process, but it is essential to pay attention to the content and quality of learning and teaching. An appropriate form of study should be chosen accordingly. Study regulations should be flexible and procedures easily adaptable to the specificities of the study and teaching.

2.3.2 National Policy Recommendations - Desk Research

The following two types of higher education institutions are available in Lithuania: universities and colleges that may be public or private. At the beginning of 2023, there were 18 universities and 19 colleges in Lithuania.

The main documents governing the studies in Lithuania are as follows:

- Law on Education. This Law establishes educational goals in the Republic of Lithuania, the principles of the education system, the foundations of the structure of the educational system, educational activities and educational relationships as well as obligations of the State in the area of education (Lietuvos Respublikos švietimo įstatymas, 1991).

- Law on Science and Studies. This Law establishes the state regulation of science and studies; the principles of quality assurance of science and studies; the legal basis of establishment, termination and restructuring of higher education and research institutions; awarding and recognition of higher education qualifications and scientific degrees; management of higher education and research institutions, organisation and supervision of their activities; rights and duties of the academic staff, research staff and students of higher education and research institutions; funding of higher education and research; principles of management, use and disposal of the assets of state higher education institutions (Mokslo ir studijų įstatymas, 2009)

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- Law on Non-formal Adult Education and Continuous Learning. This Law governs non-formal adult education and continuous learning, the foundations for their structure, organisation and funding.

- Law on Legal Protection of Personal Data.

Quality assurance is carried out at a national level and centrally. The quality assurance system is implemented through the external evaluation and accreditation of study programmes, and the external evaluation and accreditation of higher education institutions.

These documents are the basis for the activities and studies in higher education institutions. The other key documents describing the organisation of studies in higher education institutions are as follows: Study Regulations, Strategy, Regulations for the preparation, defence and storage of research papers of students studying at a higher education institution, Description of the Procedure for the Organisation and Implementation of Distance Learning Activities.

Higher education institutions also refer to the Standards and Guidelines for Quality Assurance in the European Higher Education Area (2015), and general requirements for study (2021).

We analysed documents available on the websites of higher education institutions related to eLearning. We noted that distance education is more documented by universities than colleges, and universities invest more in the development of staff competencies.

Higher education can be implemented in a traditional, distance learning, or blended learning mode. For example, Study regulations of 3 universities state that studies can be carried out in traditional, distance and blended modes. In other HEIs' regulations, distance learning or remote work is merely mentioned. The study regulations of the 2 colleges state that distance learning is available at weekends.

Innovation, modernisation and digitalisation are identified in strategic action plans of the largest universities in the country. For example, the Strategic Action Plan of Vytautas Magnus University (2021-2027) includes the development of distance and open studies by increasing the offer of modern distance studies and modernising the virtual learning environment by applying the latest smart technologies; applying new forms and methods of teaching, giving teachers the freedom to modernise the content and forms of studies. The strategy of Kaunas University of Technology (2021-2025) includes strengthening the study content with technological knowledge and tools. The strategy of Vilnius Gediminas Technical University (2021-2030) identifies innovativeness - the search for innovative technological solutions, and the development of study programmes in line with the University's innovative attitude - as a promoted value. Vilnius University is focused on

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increasing internationalisation. Only strategic action plans of 7 colleges include the creation or development of eLearning, digital content and/or the increased focus on teaching content in the virtual learning environment.

The public documents of higher education institutions also indicate that committee meetings, work, or thesis defences can be held remotely. The description of procedures for the defence of final theses states that final theses may be defended remotely with permission and when conditions for the defence are guaranteed.

31 institutions (14 universities and 17 colleges) document the use of Moodle or link to it on the homepage. The most frequently mentioned video conferencing tools are MS Teams and Zoom.

To prepare the IO1 report in August 2021, we reviewed information published by HEIs on their websites. It is interesting to note that 21 HEIs had a separate COVID web page with up-to-date information on the delivery of studies, remote work and the number of cases of COVID-19, and prevention. In the analysis, we identified such links posted on only 5 institutional pages at the beginning of January 2023. These pages contain information on the implementation of face-to-face studies and the general COVID-19 preventive measures.

It was noted that some of the study documents have been updated for 2020-2021. Most institutions have updated descriptions of the procedures for the preparation and/or defence of final theses and descriptions of the procedures of eLearning.

12 institutions (5 out of 14 universities and 7 out of 19 colleges) provide the description of the institution's procedures for organising and/or implementing eLearning activities on their websites. One university's website contains a link to the description for logged-in users only. The links in the documents of study to the description links on the websites of the three universities are inactive. No information could be found on eLearning policies in other higher education institutions, but it is possible that these policies are available only to staff or students or that no documentation has been produced. In some cases, the description of the procedures is only valid if there is a government decision to run the courses online (for example, Alytus College).

The most common parts of the description of eLearning procedures are as follows:

- general provisions (document aims, terms),
- protection of intellectual property, copyright and personal data,
- the role of the teacher in distance learning,
- rights and obligations of the student,

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- assessment of student learning achievements.

More detailed and structured eLearning procedures have been developed by universities. The most comprehensive documents regulating the organisation and delivery of eLearning are available on the website of Vytautas Magnus University: description of the procedures for study course attestation, description of the procedure for distance and blended study organisation, description of procedure for non-formal distance education organisation, description of procedures for organising virtual mobility, the general order of the preparation and defence of the final theses, quality assurance methodology for distance and blended studies (not available to the public). The description of the procedure for the organisation of distance and blended studies (VDU, 2020) regulates the evaluation and accreditation of the suitability of courses (modules) for distance and blended studies, the registration of users and their consultations in the virtual learning environment defines the activities and responsibilities of study departments, teachers, and students, defines the intermediate and final evaluations in the virtual learning environment, and specifies requirements for the distance and blended studies environment and the videoconference system.

The Action Plan for 2021-2024 of the Ministry of Education, Science and Sport includes the following actions: updating study programmes by reviewing the duration of studies, promoting the development of eLearning and digitisation and delivery of studies in English, updating and implementing the Guidelines for the Development of Higher Education Teachers' Competences, with the focus on the continuous development of the academic staff's competences, with a priority for competences in the field of foreign language, digital competences, academic ethics, and didactics.

The Ministry of Education, Science and Sport provides several links related to eLearning:

- Publication “Distance education: challenges, experiences, solutions” (Nacionalinė švietimo agentūra, 2020). However, this publication is targeted towards general education.

- The publication “Lithuania. Education in the country and regions 2021. Distance learning”. It is pointed out that since the quarantine began, the national government has provided targeted grants for the education system to adapt and enable remote working. The publication provides an analysis of the state of education and the situation of eLearning in the country and presents the processes of eLearning during the pandemic, the results and the impact on education. However, the focus is on the situation in general education. There is limited information on higher education institutions. Some important observations are the following:

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- In the country, students at universities receive the largest amount of funding, and college students the smallest.

- There is a trend of increasing numbers of people with tertiary and higher education and decreasing numbers with primary education. In 2020, after the quarantine was introduced, the unemployment rate was the lowest among the highly educated population. The COVID-19 pandemic mostly affected young people and women in the workplace.

- During the quarantine period, 57% of university teachers thought that the time spent on teaching increased by 30% or more. One could note an increased workload of teachers, the need for sharing experiences, cooperation, and communication with the administration; the availability of new opportunities for improving teaching; difficulties increased self-confidence and motivation to teach; decreased competition between teachers. The pandemic has had a significant impact on the well-being of the course participants. The digital literacy skills gap has narrowed, and new teaching methods and forms have been introduced (Švietimo, mokslo ir sporto ministerija, 2021).

The latest study on higher and general distance education in Lithuania and detailed report has been provided as part of the Lithuanian Research Council financed project “Model of distance working and learning organisation and recommendations for extreme and transition period” (EXTRE, 2020). The study included the analysis of the situation of the organisation and delivery of eLearning and remote work, a survey and evaluation of needs, requirements and existing experiences, interviews with teachers and students in general education, teachers and students of higher education institutions on eLearning during the pandemic period. The research team developed the model for the organisation and delivery of eLearning and remote work and produced guidelines for the organisation and delivery of eLearning and remote work. The developed guidelines for the organisation and delivery of eLearning and remote work contain the following items: staff training, training material; regulating documents; technological tools; teaching processes: changes of lessons, lectures, and study programmes; providing information, advice, communication; academic integrity assurance; data analysis; cybersecurity.

The Centre for the Quality Assessment of Studies (SKVC, 2020) summarised the data on the organisation of online studies and study-related activities. The report showed that the organisation of eLearning activities should involve the central administration coordinating all activities or activities and responsibilities should be shared between departments in HEIs. During the COVID-19 pandemic, HEIs carried out eLearning following the previously developed eLearning regulations. However, some institutions were in the process of developing a new study plan, adopting interim procedures, and preparing methodological guidelines, plans and training. The

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analysis showed that technical, academic, informational and psychological support was provided to teachers and students.

Lamanauskas & Makarskaitė-Petkevičienė (2021) noticed that the study content should be optimised by ensuring coherence between the theory and practice and the diversity of methods and activities, increasing the visualization of lectures to improve the quality of eLearning and engage students. The authors suggested the revision and changes to the study plan, increasing the responsibility of the academic staff, improving lecture design, and increasing communication and collaboration.

Advilonienė (2023) pointed out that the possibility of full-time blended studies is welcome, but there is no support for a purely eLearning model. According to the study, the quality of blended learning requires the following items: defining the responsibilities of the institution and the teachers, ensuring organisational-technical preparation, coordination of the study process, accessibility of learning materials, and the appropriate choice of teaching content and format. Students prefer blended learning to full eLearning because of the face-to-face interaction, lack of motivation, teacher and/or student preparation, organisational-technical disruptions, learning challenges and difficulties, and academic integrity in distance education.

According to Jusas et al. (2021), the development of eLearning consists of the following actions:

- Supply plan for physical and technical resources;
- Funding assurance plan;
- Staff development plan;
- Procedure to use the resources;
- Upgrade plan including organisational and methodological aspects;
- The procedure of monitoring;
- The procedure of virtual mobility.

As the researchers stated, the whole community needs to be involved in the study process.

Dagienė et al. (2022) stated that changes had a significant impact on the adaptation, organisation, and implementation of specialised courses (modules). This has been a stimulus for teachers to update and adapt the content to achieve learning objectives. In addition, changes in the study process during the pandemic have improved communication and collaboration between the central university leadership and the faculty administration and promoted

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collaboration at the international level. Researchers' study confirmed the following quality factors: administrative actions, cooperation between different levels of management and the academic community, development and maintenance of the technical base, timely and continuous support for lectures, comprehensive support for students, and study process control.

2.3.3 National Policy Recommendations - Implementing the eLearning readiness checklist for HE institutions

In this section, one will encounter the results of the online questionnaire (eLearning readiness checklist). The questionnaire was completed by 97 members of the academic staff at one of the universities in Lithuania. The results are provided according to the areas included in the eLearning Readiness Checklist.

Leadership

The results of the research showed that the academic staff lacks information on the usage of the digital strategy and collaboration with partners. 46.39 % of the respondents didn't answer whether the university had a digital strategy, and 54.64 % of the respondents did not know whether the partners were involved in the development of the digital strategy. However, it has been observed that the academic staff follows copyright and licensing rules when using digital technologies for online teaching and learning. 42.27 % of the respondents almost always refer to copyright and licensing rules.

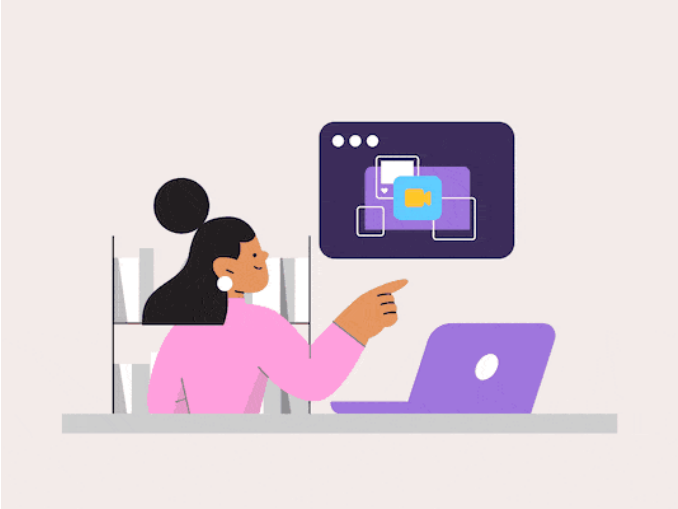

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Table 1. Responses regarding leadership (percentage)

UNIVERSITY INSTRUCTOR	1-Never	2	3	4	5-Almost always	I do not know
At our university, we have a digital strategy.	5.15	5.15	10.31	13.40	19.59	46.39
Our university leaders involve me in the development of the university´s digital strategy.	7.22	15.46	18.56	15.46	12.37	14.43
Our university leaders support me in trying out new ways of teaching online.	11.34	11.34	22.68	19.59	25.77	9.28
The companies we collaborate with are involved in the development of university's strategy.	19.59	8.25	5.15	5.15	7.22	54.64
I have time to explore how to improve my online teaching.	13.40	20.62	38.14	17.53	10.31	-
We follow copyright and licensing rules when using digital technologies for online teaching and learning.	1.03	3.09	5.15	22.68	42.27	25.77

Collaboration and networking

This part aims to know how effectively participants share their experiences and learn within and beyond the organisational boundaries. It has been noticed that most teachers could not answer whether they reviewed their progress during online teaching and learning (34.02 %) and collaborated with other universities/institutions or organisations in general (research centres, businesses) to support the use of digital technologies (36.08 %). The average rating for each statement shows that different methods have been used, such as reviewing teachers´ progress in online teaching and learning, discussions about the advantages and disadvantages of teaching and learning online by resorting to digital technologies, usage of digital technologies in the partnerships with other organisations (universities, research centres, businesses etc.), collaboration with other universities/institutions or organisations in general (research centres, businesses) to support the use of digital technologies.

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Table 2. Responses regarding collaboration and networking (percentage)

Collaboration and Networking	1-Never	2	3	4	5-Almost always	I do not know
Progress review	6.19	8.25	15.46	20.62	15.46	34.02
Discussion on the use of technology	12.37	19.59	29.90	22.68	11.34	4.12
Partnerships	10.31	9.28	11.34	19.59	23.71	25.77
Synergies for Remote Teaching and Learning	1.40	8.25	12.37	14.43	15.46	36.08

Infrastructure and equipment

According to the questionnaire data, the university ensures access to the internet, promotes platforms and tools that support the delivery and management of online teaching, has digital devices for teachers to use for online teaching, digital infrastructure to support teaching and learning online, and technical support is available in case of problems with online learning. There is a lack of a plan or measures in place to identify challenges that arise with remote teaching and learning, related to students' learning needs and socioeconomic backgrounds.

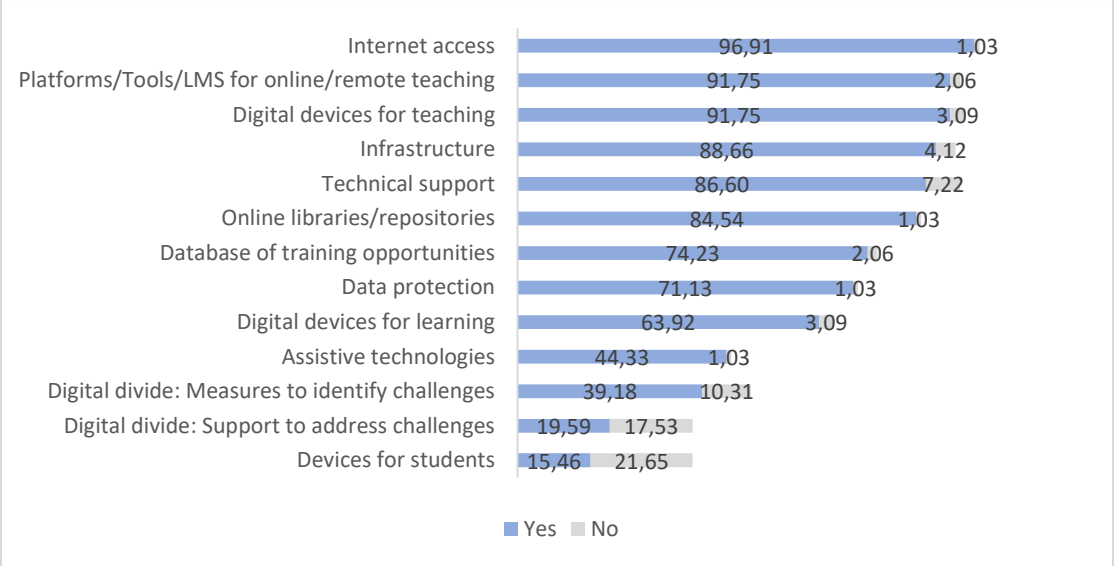

Figure 1. The infrastructure provided by the university (percentage)

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Continuous Professional Development

The results show whether the university facilitates and invests in the continuous professional development (CPD) of its academic staff at all levels. According to the answers provided by the respondents, university leaders very rarely discuss with the academic staff the CPD needs for teaching online (M=2.56). Teachers also receive a medium level of support to share experiences within the university community about teaching online (M=3.1). Teachers more often have opportunities for using digital technologies, specific to the courses delivered online and improve their online teaching practices (M=3.55 and M=3.47, respectively).

Table 3. Responses regarding the collaboration and networking (percentage)

	1-Never	2	3	4	5-Almost always	I do not know
CPD needs	27.84	20.62	15.46	16.49	11.34	8.25
Sharing experiences	15.46	12.37	19.59	20.62	15.46	16.49
CPD opportunities: the technical aspect	8.25	13.40	14.43	30.93	24.74	8.25
CPD opportunities: pedagogy	10.31	15.46	12.37	30.93	24.74	6.19

The respondents were asked to indicate the usefulness of CPD activities for the pedagogical use of digital technologies for teaching online if they had participated within the last year. The university academic staff preferred professional development opportunities such as learning from other colleagues within their university through online or offline collaboration and online courses, webinars or online conferences.

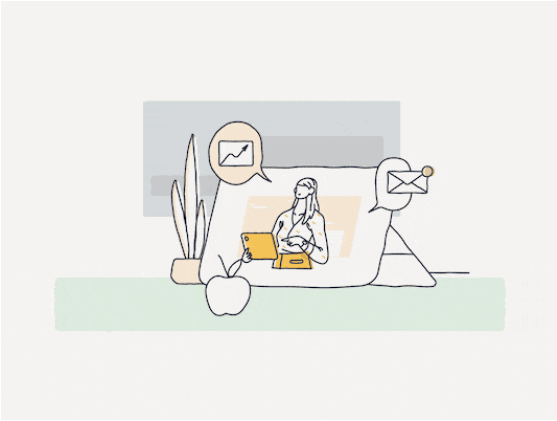

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Table 4. Participation in continuing professional development (percentage)

Continuous Professional Development	1 - Not at all useful	2	3	4	5 - Very useful	Did not participate
Face-to-face professional learning	1.03	2.06	4.12	19.59	22.68	50.52
Online professional learning	-	2.06	10.31	28.87	32.99	25.77
Learning through collaboration	-	2.06	5.15	29.90	35.05	27.84
Learning through professional networks	1.03	2.06	12.37	16.49	24.74	43.30
In-house mentoring/coaching	5.15	4.12	6.19	19.59	12.37	52.58
Other in-house training	1.03	3.09	8.25	22.68	18.56	46.39
Study visits	3.09	2.06	5.15	16.49	18.56	54.64
Accredited programmes	4.12	1.03	7.22	9.28	7.22	71.13
Other CPD opportunities	1.03	1.03	6.19	13.40	17.53	60.82

Teaching and Learning: Support and Resources

Responses shape the attitude towards the preparation of using digital technologies for learning by updating and innovating online teaching and learning practices. The academic staff prefer the usage of the virtual learning environment with students and digital technologies/online platforms for university-related communication. Less often they include detailed guides/tutorials (e.g., course guides explaining the assignments, the tutorials for how to use the online tools) to support students when learning online. The least attention is paid to the incorporation of digital resources for special needs learners.

Table 5. The support and resources in teaching and learning practices (percentage)

Support and Resources	1-Never	2	3	4	5-Almost always	I do not know
Online educational resources	7.22	8.25	15.46	28.87	38.14	2.06
Creating digital resources	18.56	9.28	22.68	23.71	23.71	2.06
Digital resources for special needs learners	24.74	13.40	15.46	9.28	7.22	29.90
Digital resources for personalised learning (tailored to students' needs)	17.53	13.40	19.59	21.65	16.49	11.34
Open educational resources	3.09	6.19	16.49	29.90	38.14	6.19
Using virtual learning environments	2.06	3.09	7.22	18.56	68.04	1.03
Guidance/online tutorials	5.15	5.15	14.43	23.71	43.30	8.25
Communicating with the university community	1.03	1.03	9.28	22.68	64.95	1.03

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Teaching and learning: implementation

In the case of implementing digital technologies for the purpose of learning, by updating and innovating online teaching and learning practices the following aspects are notable: teachers more often use digital technologies to tailor their online teaching to students' individual needs, incorporate authentic, hands-on, online learning activities, use online platforms for career counselling/guidance.

Table 6. Implementation of online teaching and learning (percentage)

Teaching and Learning: Implementation	1-Never	2	3	4	5-Almost always	I do not know
1. Tailoring to students' needs	5.15	8.25	11.34	32.99	32.99	9.28
2. Fostering creativity	11.34	19.59	23.71	19.59	19.59	6.19
3. Engaging students	10.31	15.46	23.71	17.53	25.77	7.22
4. Student collaboration	6.19	14.43	16.49	26.80	27.84	8.25
5. Authentic learning	5.15	10.31	18.56	20.62	32.99	12.37
6. Career guidance	13.40	2.06	11.34	22.68	32.99	17.53
7. Social presence*	19.59	16.49	14.43	14.43	14.43	20.62

Online assessment practices

The most valued online assessment practice is timely feedback. Teachers use appropriate digital technologies to assess various students' skills (e.g., academic-related, interpersonal, metacognition, etc.). In addition, teachers enable students to reflect on their learning through online activities. Teachers avoid valuing digital skills that students have developed outside the university and work-based settings.

Table 7. Online assessment practices used in the university (percentage)

Online assessment practices	1-Never	2	3	4	5-Almost always	I do not know
1. Assessing skills	5.15	4.12	15.46	28.87	31.96	14.43
2. Timely feedback	2.06	3.09	11.34	32.99	49.48	1.03
3. Self-reflection on learning	4.12	11.34	14.43	30.93	20.62	18.56
4. Feedback to other students	4.12	9.28	16.49	32.99	24.74	12.37
5. Online assessment	14.43	8.25	14.43	16.49	13.40	32.99
7. Using data to improve learning	13.40	14.43	19.59	25.77	19.59	7.22
8. Valuing skills developed outside the university	24.74	6.19	15.46	16.49	12.37	24.74

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Learner Digital Competence

Respondents stated that students learned to communicate using digital technologies and developed digital skills related to their academic qualifications. More than half of the respondents could not answer whether they were taught how to behave safely online and whether their university leaders ensured that students develop their digital skills across subject areas/fields of study. The university also uses other strategies to improve students' digital competencies mentioned in the statements, but they do not differ significantly.

Table 8. The development of learner digital competence (percentage)

Learner digital competence	1-Never	2	3	4	5-Almost always	I do not know
1. Safe behaviour	2.06	10.31	13.40	17.53	4.12	52.58
2. Responsible behaviour	4.12	9.28	14.43	16.49	7.22	48.45
3. Checking the quality of information	3.09	8.25	17.53	25.77	16.49	28.87
4. Giving credit to others' work	3.09	8.25	20.62	22.68	16.49	28.87
5. Creating digital content	3.09	11.34	10.31	27.84	14.43	32.99
6. Learning to communicate	2.06	1.03	7.22	32.99	32.99	23.71
7. Digital skills across subject areas/fields of study	4.12	5.15	8.25	19.59	12.37	50.52
8. Solving technical problems	3.09	2.06	13.40	23.71	16.49	41.24
9. Skills for academic qualification	1.03	1.03	11.34	34.02	28.87	23.71

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2.4 Greece

2.4.1 National Policy Recommendations - Interviews

Two subjects participated in the interviews. A 55-year-old female university professor, who is dean and member of the Senate, as a representative of the leadership of the institution that shapes educational policy and a 50-year-old male technical manager at the university network support centre who knows the infrastructure and networks of the institution.

The specific interviewees were selected because we judged that they represent a wider range of perceptions about online learning in higher education. After being asked and consenting, they participated in a 30 '- 40' interview. After being asked and consenting, they participated in a 30 '- 40' interview. During the interview, the interviewer took notes on paper.

The interview was semi-structured, while the discussion went in depth to extract relevant data.

2.4.2.1 Findings

Overall, participants acknowledged that the university's infrastructure and networks were inadequate and needed to be improved. However, there was an indication that after the pandemic COVID-19, an effort is being made to improve the situation.

Important tools for online learning were learning management platforms, teleconferencing tools, high-speed networking, and appropriate equipment both on campus and as participants' home equipment. Although they agreed on the need for the university to support equal access, this did not happen. To improve the situation, they proposed to increase the funds available for the online course and the training of the teaching staff. It also suggested the need for specialized training of teachers, as well as the creation of a special technical support department that will assist online learning. They stated that there is no strategic planning in the policy of the institution. Efforts have been made to meet the requirements arising from the pandemic COVID-19. There is an institutionalized evaluation process with a relevant section that evaluates, among other topics, digital technologies. However, as reported by the Dean, the recommendations of the evaluation reports are sometimes exceeded due to the non-availability of the relevant funds.

The university does not have a special service for online courses, any support is provided at a technical level only by the network support centre. Students are only supported through access to digital services. They are trained at a basic level in the context of their studies. Students from the University do not receive special training for online learning.

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Regarding the conclusion drawn from the COVID-19 experience, both interviewees pointed to the importance of teachers' readiness to respond, their willingness to cope, and the importance of cooperation and mutual support among teachers. The technician pointed out that infrastructure was needed, which although the institution did not have at the time of the pandemic, however, after the pandemic significant efforts are being made to create it, and progress is already being observed. For her part, the Dean emphasized that the experience of the pandemic made the relevant councils take the required decisions for the allocation of funds regarding the support of online teaching. She mentioned to us the importance of the establishment of teaching support offices, which were created and financed. However, their creation is very recent and we do not yet know about their effectiveness.

Teachers consider the participation and activation of students as a challenge of online learning. They also point out difficulties in teaching laboratory courses. Finally, the digital material used in online learning is the result of the individual initiative of teachers.

2.4.2 National Policy Recommendations – Desk Research

This report aims to contribute to the composition of IO4, the purpose of this particular intellectual output, the state of affairs when it comes to current higher education practices in our country, as well as the methodology of obtaining the necessary data (discussions, desk research, checklist distribution) with all the necessary information about the research process.

The OnlineHE project proposes the following OBJECTIVES:

1. To build the capacities of HE teaching staff, academics, and learning designers in integrating e-learning in the design and delivery of courses;

2. To develop innovative quality resources for HE faculty members to support the adoption of e-learning in higher education;

3. To raise awareness of the need and value to integrate e-learning in HE in close cooperation with all stakeholders involved, including policymakers;

4. Improve the supply of quality higher education opportunities for all.

The OnlineHE policy and practice guidelines for integrating eLearning in higher education represent the fourth intellectual output IO4 of the OnlineHE project. The aforementioned policy and practice guidelines will constitute a step towards a more systematic and institutionalized

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approach of higher education institutions to online, i.e. distance learning and its various options and possibilities towards a more equal participation of all relevant stakeholders (HE students, staff, etc.). Being the final intellectual output of the project and an all-encompassing one, it will build on previous project results and intellectual outputs to provide higher education actors with a platform which will then further be upgraded and modified according to individual HE contexts and positions.

Through the national report of I04, we aim to contribute to the policy and practice guidelines for integrating eLearning in higher education focusing on:

- providing concrete policy recommendations for university leadership teams, decision-makers, and key policymakers at national policy levels and/or the EU level;
- promoting the use of online teaching and learning in higher education by employing eLearning strategies and tools with higher education students to modernise higher education institutions in Europe
- building the higher education institutions´ capacities to integrate eLearning in a systemic and organised manner into their everyday practices
- fitting the brief practical recommendation reports into policy directions.

At present, the situation at the national level is going through a period that follows the experience gained from the management of the issue during the operation of Greek universities during the period of the Covid-19 pandemic.

According to the field research we have carried out we found that online education in universities in Greece, although it seems to have started to spread in a coordinated way from the beginning of the year 2000, however, did not follow a steady growth. Fragmentary efforts are recorded in the literature, which does not lead to extended applications. This situation seems to have changed during the COVID-19 pandemic when universities in Greece had to apply online distance learning methods. This was the reason why a different approach seems to be developing, without, however, forming an organized mechanism for supporting online learning, which will work permanently. However, the experience of the COVID-19 pandemic seems to have highlighted the seriousness of the issue.

After this experience, on the one hand, the need for modern distance learning emerged, and on the other hand, the problems that arose and their solution is being investigated. The Ministry of Education, following the experience gained from the Covid-19 period, recognized the lack of support for teaching in Universities. Therefore, it established by legislation in September 2020

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the establishment in every University in Greece a special department that will function as a Support Office for Teaching and Learning in Higher Education. The newly formed teaching support departments are now trying to organize, create materials and make teaching support interventions. Much of their work concerns the support of Online Teaching in Higher Education. However, to date these offices have not yet fully started their operation, they are at an initial stage and have just started to take their first steps. Therefore, we cannot evaluate their work.

2.4.3 National Policy Recommendations – Implementing the eLearning readiness checklist for HE institutions

This section includes the results obtained from the distribution of the questionnaire. The questionnaire was applied at the institution of the International University of Greece. It was distributed electronically, through the Google Forms application. As a target group were HE faculty, eLearning experts, instructional designers & practitioners, policymakers & leadership teams and HE students. We randomly selected participants who belong to the above categories. The questionnaire was sent to 50 subjects, and 31 participants responded, 62%.

The questionnaire that was distributed consisted of 25 questions, which were divided into four sections: a) demographic data, b) leadership and infrastructure, c) collaboration and professional development, and d) teaching and learning practices.

According to the survey data, the sample consists of 83,9 % women and 16,1 % men. The largest percentage of 51,8% of the sample is under 30 years old. Participants aged 36-45 are 22,6%, respectively those aged 46-55 are 19,4%, while those over 55 are in a limited percentage of 6,5%. All participants in the research come from a large Public University, which has more than 500 staff and more than 10,000 students. Of those working at the university, 3,2% work in research, while 35,5% works on teaching and 40% are related to learning material design.

2.4.3.1 Findings

When the participants were asked if they know if there is a strategic plan for integrating digital technologies into their university, most of them answered that they do not know 51,6%, others answered that it does not exist (32,3%), while only a percentage of 16,1% believe that this exists in their university. Of the respondents, a clear 39% believe that faculty, learning designers and leaders work together for the learning outcome, while only 22,6% are sure that there is no cooperation between them. The majority state that their University does not have sufficient

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structures and networks to support digital learning (at a rate of 45,2%), as well as does not have the necessary technical support in case of problems with digital technologies (at a rate of 41,9%). However, most of those who declare that they know about it (41,9%), believe that there are systems to protect their data. More participants believe that the necessary conditions are not met for everyone to have access to online course services, at a rate of 32,3%, while only 19,4% believe that the conditions are provided for everyone to have access to the online course, while this is pursued mainly through training and financial assistance.

Participants do not appear to be aware of collaborations with other educational institutions to support digital teaching (at a rate of 51,8%), while 25,8% know that there is indeed no kind of collaboration. Respectively, it is found that the teaching staff is not given opportunities for continuous professional training, related to supporting the use of digital technologies (48.4% do not know while 22.6% are sure about the lack of opportunities). To a limited extent, the training concerns cases such as learning from other colleagues or in-house training sessions organized by the university.

The majority, i.e. 61% of the participants, believe that teachers have time to prepare and improve their digital teaching.

According to the respondents, the most common practices of the online course are the following:

Traditional direct instruction (lessons are focused on the delivery of content by the instructor and the acquisition of content knowledge by the students), in this case, 83.9% state that it is used very often.

The didactic approach of “collaborative learning” (students are involved in joint intellectual efforts with their peers or with their teachers and peers) is applied to a more limited extent, as 45% consider it to be applied relatively often. The teaching methods of “project-/problem-based approach” and “peer feedback”, are stated to be applied to a moderate degree. On the other side the practice of the approach of “personalised learning” (teaching and learning are tailored to meet student´s interests and aspirations as well as their learning needs), is the method where it is declared to be strongly absent, according to the statement of 58% of respondents.

In terms of utilization of tools and resources, it seems that the most common is “presentations” (MS PowerPoint, Google Slides, Prezi etc.) (87,1%), “word processors” (e.g., MS Word, Google Docs) (80,6%) and the “audio/video materials” (77,4%). Also to a moderate and expected degree, the participants state that they use the resources of “web conferencing tools” (e.g. WebEx, Zoom, Microsoft Team, Big Blue Button, etc.), “learning management system” (e.g. Moodle, Google Classroom, Chamilo, Canvas, Blackboard etc.) and consequently “learning analytics and digital

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data" (e.g., time students take to complete a task in a platform, views/interactions in an online tool, etc.), as all the previous ones range in percentages at the levels of 45% -50%. There is a clear lack of tools and resources for "special needs learners" and "digital resources for personalised learning".

As to whether learning activities exist that allow students to develop their digital skills, most of the participants answered positively, at a rate of 48,4%. The skills that respondents believe that are cultivated are: "how to use others' work they find online" (77,8%), "how to create digital content" (66,7%) and "how to communicate using technology" (66,7%). While they believe that the skills that are cultivated to a limited extent, are: "how to check that the online information is reliable and accurate" (55,6%) and "how to use technology in different subject areas/fields of study" (55,6%).

Further, on the challenges they face during online teaching and learning, respondents state that is "insufficient Internet bandwidth or speed" (51,6%), the "lack of skills in using digital tools" (41,9%), the "inadequate devices" (35,5%) and the "insufficient technical support" (32,3%).

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2.5 Spain

2.5.1 National Policy Recommendations – Interviews

The interviews carried out with policy stakeholders in Spain focused on two main issues: eLearning strategies and challenges of eLearning.

In the case of eLearning, its great scope and rapid diffusion have positioned it as one of the main alternatives to the traditional training model and, why not, one of the best allies of the said model. Currently, the debate does not revolve around face-to-face or online training. This is not about betting on a winning horse, since the only bet to be made must have the student body as the centre. It is time to look for digital solutions that can help overcome challenges in face-to-face models, and 100% eLearning.

When talking about the challenges of eLearning it is not just about referring to the challenges faced by the education sector. Talking about the challenges of eLearning means having a much deeper reflection. Analyzing how certain variables (the appearance of new techniques and methodologies, the rise of new didactic tools, and the implementation of various multimedia resources...) can help us create training projects based on experiences.

However, to achieve this, we must first understand that the eLearning model undergoes a permanent metamorphosis. A process of constant change that has at its centre the element around which any training project must revolve; the student body regardless of whether they are studying to obtain a Higher Vocational Training Degree, a University Degree or corporate training within a work environment, there will be no challenge to overcome if we are not capable of understanding that people are the center of any educational project and, therefore, of eLearning.

eLearning Strategies

The adoption of an online training policy at the University is a necessity, due to both the demographic context and the requirements of society, but especially to the guidelines of the European Higher Education Area and its firm commitment to lifelong learning.

The strategic elements that the university should consider when addressing an implementation strategy for its eLearning structure can be summarised in the following items.

1) Develop a training strategy for media users´ technology, especially teachers.

2) Bet on technological and human resources.

3) Create specific coordination centres for eLearning.

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4) Recognise the use of training tools.

5) Extend the use of tools to any level and formative modality university.

6) Extend the use of tools beyond their formative use.

7) Integrate virtual training systems with the portfolio of competencies and student skills.

8) Prepare a regulation that regulates the operation, accreditation and recognition of online training.

9) Betting on the quality as the banner of online training.

The challenges of eLearning

Although the characteristics of each training project will be the key to determining the particular challenges, there are some common challenges. The most common ones that came up during the interviews are the following:

Bet on an adapted e-learning

Faced with the consequences of the COVID-19 pandemic, and with the need to provide immediate responses, different training centres, higher education institutions and companies have been forced to make decisions regarding eLearning training that do not always start from choosing the most appropriate solutions.

These decisions of course affect the quality of the training, teaching and learning. They also affect what should be the main objective, to make students "grow" through learning experiences adapted to their cognitive and human needs. For this reason, one of the main challenges faced by companies and higher education institutions is to propose quality training, teaching and learning by providing solutions through the implementation of different techniques and methodologies (microlearning, gamification, video-learning...).

Quality content above all

Poor quality content, which has not been created by following pedagogical criteria and which does not have the necessary resources to be attractive, will end up distancing the students from the training action. For this reason, the second challenge faced by higher education institutions and companies is to put quality content in the hands of their students.

In this regard, it is essential to have an experienced team of teachers and trainers that can provide the teaching content with the necessary touch of interactivity.

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Increase confidence in e-learning

Even though eLearning is growing exponentially, for many people being a part of online training still generates a certain amount of distrust. It is clear that each person has their preferences, and the challenge is not to ensure that the answer is always in favour of the eLearning modality. However, if we can overcome the two previous challenges, we will be able to observe eLearning as an effective solution, regardless of whether eLearning is used as the main option or as a complement to the face-to-face modality.

The audiovisual as a learning tool

Linked to the challenge relating to quality content, another perceived challenge of eLearning is to convert videos and other audiovisual resources (illustrations, infographics, concept maps, podcasts...) into the main resources, i.e. the content.

Encourage member participation

One of the main advantages of the eLearning model is that it allows the concept of collaborative work to be developed from anywhere and at any time. However, to achieve this it is necessary to put the necessary tools in the hands of the students and the teaching team so that communication flows properly at all times.

This challenge, which seems to be overcome in the technical part, still has a long way to go in terms of the link of each student with each training action. In this sense, some of the elements already mentioned (methodologies, contents, resources...) will play a fundamental role.

Online and Live training

This challenge, which has been around for a long time, has taken on greater prominence with the advent of COVID-19. Precisely because it is one of the solutions that best adapts to the face-to-face model to ensure the continuity of the training activity, while the measures related to social distancing are maintained.

Concepts such as Virtual Classroom and its correct implementation will help to overcome this challenge.

The path to overcoming the challenges of eLearning

These are some of the main challenges faced by Higher education institutions that are committed to eLearning. Overcoming them is not a matter of time. The key is to adopt a winning approach and strategy to offer your students a training model that undergoes a constant metamorphosis.

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2.5.2 National Policy Recommendations – Desk Research

The Spanish University System is ruled by the Organic Law on Universities 6/2001 (LOU) which has been modified by Organic Law 4/2007, and recently by the Organic Law 3/2023, from March 2023. Since the reform in 2007, eLearning issues have been specially assessed hand in hand with the guidelines from the European Space of Higher Education.

However, it was as early as 1970 when the Education Law was passed that the Spanish system considered eLearning as a pedagogical option for university studies. The law established two different types of universities: onsite and distance universities, whether of public or private management. The Universidad Nacional de Educación a Distancia (UNED) was the first distance university followed by the Instituto Nacional de Bachillerato a Distancia (INBAD) in 1975 and the Centro Nacional de Educación a Distancia (CENEBAD) in 1979. In 1995 the Universitat Oberta de Catalunya was founded increasing the offer of distance learning. At present time, there are 6 distance universities in Spain with more than 190 thousand students enrolled in undergraduate courses, accounting for 15% of the overall university enrollment. Even if this institutional classification is defined by the law, there are eLearning activities in all Spanish universities, both onsite and distance ones. During and after the pandemic this gained strength, with many institutions increasing their offer from individual courses to complete degrees and the efforts are now oriented to quality assurance.

As for quality assurance intended to "*promote transparency, comparison, cooperation and competition of the Universities at the national and international level and promote the improvement of the teaching and research activity and management of the Universities,*" the National Agency for Quality Assurance (ANECA) was created in Spain in 2002 and became fully operative by 2010. A lot of criticism arose from the application of equal evaluation criteria for onsite and distance institutions and courses, leading in 2005 to a guide for institutional auto-evaluation. This guide included recommendations on how to assess the specific infrastructure indicators and students´ profiles. Complementary with ANECA, 10 regional agencies are operating in Spain and they constitute the Red Española de Agencias de Calidad Universitaria (REACU) looking to collaborate and establish common frameworks. At the international level, ANECA is a full member of the European Association for Quality Assurance in Higher Education (ENQA) and a full member of the International Network for Quality Assurance Agencies in Higher Education (INQAAHE).

Defined in 2015, the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) constitute the basis for the internal and external quality of the Espacio Europeo de Educación Superior (EEES). These ESG 2015 are equally applicable to all modes of teaching and learning. Due to intense consultations from national agencies, in 2018 a report was

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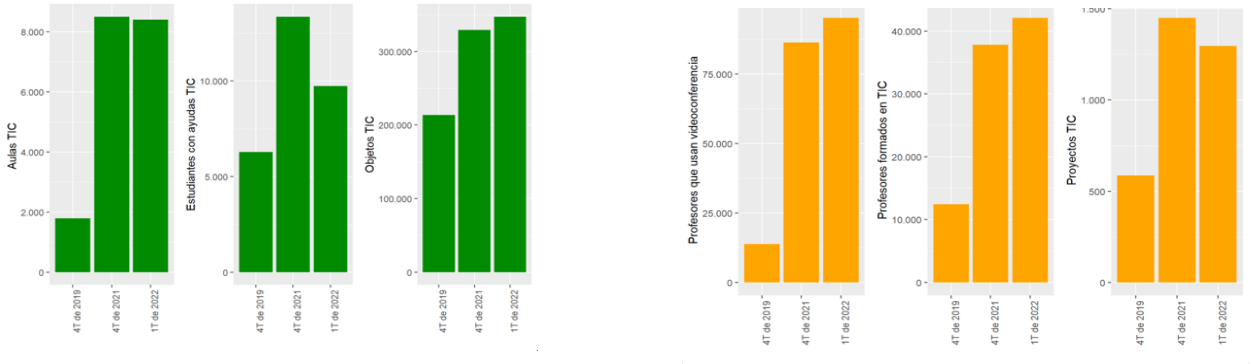
launched on Considerations for quality assurance of eLearning provision. This document was the first to establish the first eLearning framework for universities and quality assurance agencies.

Additional specifications have been generated regarding the quality assurance of the evaluation process, considered a key element for effective eLearning. Based on the results of the Adaptive Trust-based e-Assessment System for Learning (TeSLA) project, a framework for quality assurance of eLearning evaluation was created. This European framework comprised standards, indicators and evidence meant to help institutions and national agencies to improve eLearning evaluation quality.

In 2021, Spain passed the Real Decreto 641/2021 defining the need for universities to improve the digitalization index by 10% from 2019. This digital index included: the number of classrooms with videoconference and class recording systems; number of teachers who use videoconference and recording systems for teaching; number of students aided with equipment loans or access to connectivity; number of teachers trained in educational technology tools for online training; number of projects for developments in transformation of educational technologies; average level of digital competence of university teaching staff; number of learning objects or multimedia resources in free repositories for Higher Education (ICT Objects); number of university centers connected to 100 GB; number of kilometers of fiber deployed in academic system networks and number of universities with reinforcement in cybersecurity through a secure browsing service. By measuring the aforementioned indicators, the Minister of Universities can monitor the evolution of the digitalization index and give financial support to universities facing major challenges.



Another key issue for eLearning is the educator´s training in digital competencies. Spanish universities are working hard on the subject, based on specific tools designed and supported by the Minister of Universities and also by the European Framework for the Digital Competence of

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Educators (DigCompEdu). This framework describes what it means for educators to be digitally competent, and it provides a general reference frame to support the development of educators.

Spanish universities are also supported by the work done at CRUE (Consejo Rectores Universidades Españolas), specifically by the Commission for Information and Communication Technology. It was established in 2007 and 2022 was renamed Crue-Digitalization. Some of its objectives include the following: to advise and propose appropriate topics in the field of information and communication technologies to improve the quality, effectiveness and efficiency of Spanish universities and jointly study the needs and applications of these technologies in management, teaching, and research, and also to propose joint actions and projects. In November 2022 CRUE joined the Pact for Generation D to promote digital skills in Spain. Promoted by the Secretary of State for Digitization and Artificial Intelligence, this Pact aims to train young people, adults and vulnerable groups, so that they can successfully enter the labour market and, together with the elderly, operate naturally in digital environments.

2.5.3 National Policy Recommendations – Implementing the eLearning readiness checklist for HE institutions

An online questionnaire was conducted to learn how institutions implement the eLearning readiness checklist. The following report will present the results divided into subsections, based on the topics covered in the questionnaire. 25 persons have responded to the checklist per category.

Leadership

The results from the University Leadership are positive. More than half of the respondents claimed that their university had a digital strategy (60%), and that leaders had developed this strategy in collaboration with the instructors (52%) (Table 1). On the other hand, only one-third of the respondents claimed to support instructors to try out new ways of teaching online (40 %).

There is a lack of improvement when it comes to the involvement of companies in the development of eLearning strategies. University Leadership states that only 12 % of the companies they work with are involved in the development of the university's strategy.

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Table 1: Leadership, University Leader

Area A: Leadership	From 1 to 5: Never- Rarely - Occasionally - To a considerable degree - Almost always					
UNIVERSITY LEADER	**1**	**2**	**3**	**4**	**5**	**N/A**
1. Digital Strategy	8,0%	12,0%	20,0%	20,0%	40,0%	0,0%
2. Strategy development with university teachers	20,0%	20,0%	8,0%	40,0%	12,0%	0,0%
3. Innovation in online teaching	4,0%	8,0%	48,0%	20,0%	20,0%	0,0%
4. Involving companies in strategy	40,0%	20,0%	28,0%	4,0%	8,0%	0,0%
5. Time to improve online teaching	48,0%	20,0%	12,0%	12,0%	8,0%	0,0%
6. Copyright and licensing rules	0,0%	0,0%	20,0%	20,0%	60,0%	0,0%

University instructors' feedback is less balanced when it comes to their perception of whether their institution has a digital strategy, and only 32 % are aware of a strategy at the institutional level (Table 2). 48 % confirm that the leaders have developed this strategy in collaboration with the instructors. There is a lack of improvement when it comes to trying out new ways of teaching online (12 %). 28 % did not respond to that question.

At the University teachers´ level, there is a higher perception when it comes to the involvement of companies into the development of eLearning strategies (48%). Also, 52 % state that they do not have time to explore how to improve their online teaching.

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Table 2: Leadership, University Instructor

Area A: Leadership	From 1 to 5: Never- Rarely - Occasionally - To a considerable degree - Almost always					
UNIVERSITY INSTRUCTOR	**1**	**2**	**3**	**4**	**5**	**N/A**
1. Digital strategy	20,0%	20,0%	8,0%	20,0%	12,0%	20,0%
2. Strategy development with university teachers	20,0%	4,0%	8,0%	28,0%	20,0%	20,0%
3. Innovation in online teaching	12,0%	20,0%	28,0%	4,0%	8,0%	28,0%
4. Involving companies in strategy	8,0%	12,0%	20,0%	20,0%	28,0%	12,0%
5. Time to improve online teaching	16,0%	4,0%	20,0%	12,0%	40,0%	8,0%
6. Copyright and licensing rules	16,0%	4,0%	20,0%	12,0%	32,0%	8,0%

Collaboration and Networking

Collaboration and networking illustrate a balanced but less positive image (Table 3), concerning the feedback from the Leadership. Specifically, few respondents confirm that they collaborate with other universities/institutions or organisations in general (research centres, businesses) to support the use of digital technologies (8 % confirm the occasional collaboration). However, 40 % use digital technologies, occasionally, to a considerable degree, in partnerships with other organisations (universities, research centres, businesses etc.).

Table 3: Collaboration and Networking, University Leader

Area B: Collaboration and Networking	From 1 to 5: Never- Rarely - Occasionally - To a considerable degree - Almost always					
UNIVERSITY LEADER	**1**	**2**	**3**	**4**	**5**	**N/A**
1. Progress review	12,0%	20,0%	20,0%	40,0%	0,0%	0,0%

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2. Discussion on the use of technology	20,0%	8,0%	40,0%	12,0%	0,0%	0,0%
3. Partnerships	8,0%	48,0%	20,0%	20,0%	0,0%	0,0%
4. Synergies for Remote Teaching and Learning	20,0%	28,0%	4,0%	8,0%	0,0%	0,0%

At University teachers´ level the perception is different. At the faculty level, the connection to external actors is closer (Table 4). 32 % (vs. 8% from the Leadership and 20 % not responding to that question) of the respondents confirm that they collaborate with other universities/institutions or organisations in general (research centres, businesses) to support the use of digital technologies. However, 48 % use digital technologies, occasionally, to a considerable degree, in the partnerships with other organisations (universities, research centres, businesses etc.).

Table 4: Collaboration and Networking, University Instructor

Area B: Collaboration and Networking	From 1 to 5: Never- Rarely - Occasionally - To a considerable degree - Almost always					
UNIVERSITY INSTRUCTOR	**1**	**2**	**3**	**4**	**5**	**N/A**
1. Progress review	8,0%	12,0%	20,0%	20,0%	28,0%	12,0%
2. Discussion on the use of technology	16,0%	4,0%	20,0%	12,0%	40,0%	8,0%
3. Partnerships	8,0%	12,0%	20,0%	20,0%	28,0%	12,0%
4. Synergies for Remote Teaching and Learning	20,0%	20,0%	8,0%	20,0%	12,0%	20,0%

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Infrastructure and Equipment

The infrastructure and equipment show that the university guarantees access to the Internet and digital infrastructure. Likewise, digital devices for teachers to use for online teaching, digital infrastructure to support teaching and learning online, and technical support are available in case of problems with online learning. There is a lack of a database of training opportunities and devices for students.

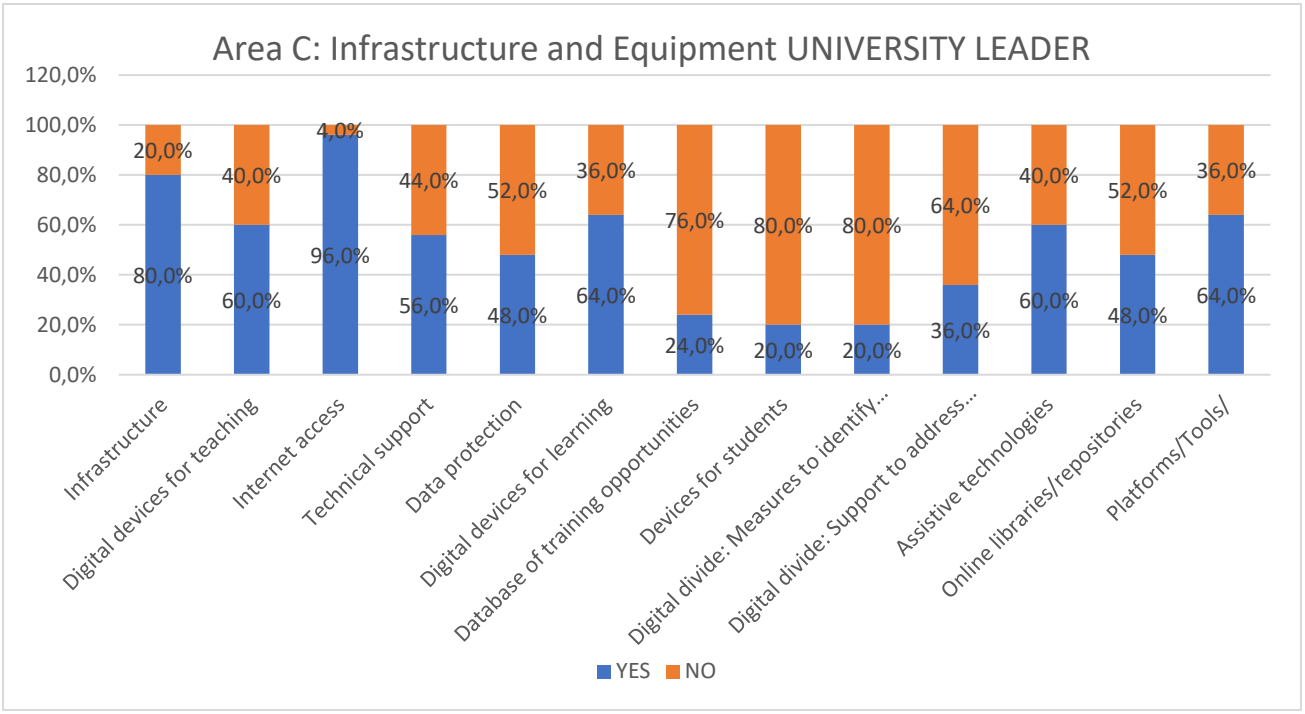

Fig. 1: Infrastructure and Equipment, University Leadership

Continuing Professional Development

52 % of university leaders confirm that their institutions facilitate and invest in the continuous professional development (CPD) of their academic staff at all levels. According to the answers provided by the respondents, university leaders confirm that their instructors have opportunities to participate in CPD for teaching and learning online/remotely (40 %) but they rarely support instructors to share experiences within the university community about teaching online/remotely (12 %).

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Table 5: Continuing Professional Development, University Leadership

Area D: Continuing Professional Development	From 1 to 5: Never- Rarely - Occasionally - To a considerable degree - Almost always					
UNIVERSITY LEADER	**1**	**2**	**3**	**4**	**5**	**N/A**
1. CPD needs	20,0%	20,0%	8,0%	40,0%	12,0%	0,0%
2. Participation in CPD	4,0%	8,0%	48,0%	20,0%	20,0%	0,0%
3. Sharing experiences	40,0%	20,0%	28,0%	4,0%	8,0%	0,0%
4. CPD opportunities	48,0%	20,0%	12,0%	12,0%	8,0%	0,0%

Teaching and Learning: Support and Resources

The results from the University Leadership are positive. More than half of the respondents know that the instructors search online for digital educational resources (60%) and that they create digital resources to support their online/remote teaching (52%) (Table 6). On the other hand, only half of the respondents claimed that their instructors incorporated digital resources for special needs learners (40%), digital resources for personalised learning (48%) and that they used digital technologies/online platforms for university-related communication (60%).

Table 6: Teaching and Learning: Support and Resources, University Leadership

Area E: Teaching and Learning: Support and Resources	From 1 to 5: Never- Rarely - Occasionally - To a considerable degree - Almost always					
UNIVERSITY LEADER	**1**	**2**	**3**	**4**	**5**	**N/A**
1. Online educational resources	8,0%	12,0%	20,0%	20,0%	40,0%	0,0%
2. Creating digital resources	20,0%	20,0%	8,0%	40,0%	12,0%	0,0%
3. Digital resources for special needs learners	4,0%	8,0%	48,0%	20,0%	20,0%	0,0%
4. Digital resources for personalised learning	8,0%	12,0%	20,0%	20,0%	28,0%	0,0%

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5. Using virtual learning environments	20,0%	20,0%	8,0%	20,0%	12,0%	0,0%
6. Communicating with the university community	8,0%	12,0%	20,0%	20,0%	40,0%	0,0%
7. Open educational resources	16,0%	4,0%	20,0%	12,0%	40,0%	0,0%

Teaching and Learning: Implementation

Concerning *Teaching and Learning: Implementation*, the results from the University Leadership are balanced. Half of the respondents know that the instructors use online learning activities that foster students' creativity (48%) and that they set online learning activities that foster students´ creativity (52%). However, only 32% facilitate students' online collaboration.

Table 7: Area F: Teaching and Learning: Implementation, University Leadership

Area F: Teaching and Learning: Implementation	**From 1 to 5:** **Never- Rarely - Occasionally - To a considerable degree - Almost always**					
ITEM TITLE	**1**	**2**	**3**	**4**	**5**	**N/A**
1. Tailoring to students' needs	8,0%	12,0%	20,0%	20,0%	28,0%	0,0%
2. Fostering creativity	16,0%	4,0%	20,0%	12,0%	40,0%	0,0%
3. Engaging students	8,0%	12,0%	20,0%	20,0%	28,0%	0,0%
4. Student collaboration	20,0%	20,0%	8,0%	20,0%	12,0%	0,0%
5. Authentic learning	8,0%	12,0%	20,0%	20,0%	40,0%	0,0%
6. Career guidance	20,0%	20,0%	8,0%	40,0%	12,0%	0,0%

Online assessment practices

The results from the University Leadership are mixed concerning *Online assessment practices*. Less than half of the respondents know that the instructors use appropriate digital technologies to assess students' skills (32%) and that they provide timely feedback to students, using digital

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technologies (48%) (Table 8). On the other hand, half of the instructors value digital skills that students have developed outside university and work-based settings (48%).

Table 8: Area G: Online assessment practices, University Leadership

Area G: Online assessment practices	From 1 to 5: Never- Rarely - Occasionally - To a considerable degree - Almost always					
ITEM TITLE	**1**	**2**	**3**	**4**	**5**	**N/A**
1. Assessing skills	20,0%	20,0%	8,0%	20,0%	12,0%	20,0%
2. Timely feedback	20,0%	4,0%	8,0%	28,0%	20,0%	20,0%
3.Self-reflection on learning	12,0%	20,0%	28,0%	4,0%	8,0%	28,0%
4. Feedback to other students	8,0%	12,0%	20,0%	20,0%	28,0%	12,0%
5. Online assessment	16,0%	4,0%	20,0%	12,0%	40,0%	8,0%
7. Using data to improve learning	16,0%	4,0%	20,0%	12,0%	32,0%	8,0%
8. Valuing skills developed outside university	8,0%	12,0%	8,0%	20,0%	28,0%	12,0%

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2.6 Serbia

2.6.1 National Policy Recommendations - Interviews

On December 29th, WEBIN conducted interviews with two educational stakeholders, namely two representatives of the Niš Academy of Technical and Educational Vocational Studies located in Southeast Serbia. The two stakeholders are members of the teaching staff at the Academy, but they are also studying programme designers at their respective institutions. The interview lasted for 90 minutes.

The transcript of answers provided during the interview with educational stakeholders:

1. ***Were there any strategies and regulations regarding distance and/or full online learning at the higher education (hereinafter: HE) level prior to COVID19?***

I) There were rules and standards relating to the process of accreditation of distance learning – defining teachers´ workload, the maximum number of students per teacher/course, the minimum necessary equipment, limitations related to knowledge evaluation in the digital environment, and the like. Strategies, rules, concepts and practical implementation are left to higher education institutions.

II) No, there was no distance learning strategy in higher education before the COVID-19 pandemic. After the outbreak of the pandemic, everyone was caught off guard. It was only after the outbreak of the pandemic that the document called Strategy for the Development of Digital Skills 2020-2024 was published, which relied on the European framework defined in 2017, but it did not contain more precise instructions for distance learning in higher education.

2. ***If so, were those strategies and regulations easily applicable in the situation of a sudden transition to full online education at HE institutions in the period of COVID19? If not, what were the main shortcomings of previously defined strategies and regulations?***

I) I believe that there was no strategy, and therefore one could not define who, what or how one should perform their work. Left to the elements, teachers with IT competencies defined their strategies and work rules.

II) Due to a lack of strategy, higher education institutions were initially left to fend for themselves. This was followed by rules following the Strategy for the Development of Digital Skills, which

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were not easily applicable due to insufficient competence (ability, knowledge and skills) necessary for the successful use of information and communication technologies in general, and then insufficient training for the use of later established learning platforms.

3. In your opinion, how ready was your HE institution for the full transition to online learning during COVID19?

I) At the beginning of the pandemic, the institution was completely taken aback by the situation. Insufficient competence and arrogance of the decision-makers, the reluctance to accept the solutions offered by those who knew something about distance learning, as well as modest IT competence of a good part of the teachers made an already complex situation even more difficult. The fact that for several months the "teaching" was conducted via e-mail speaks volumes. It took months to define and provide a distance learning platform (MS Teams), and to train teachers and students to use it.

II) Our institution was not sufficiently prepared. Online teaching (asynchronous, then synchronous) substituted "face-to-face" teaching overnight. It was then supplemented by a combined model and a very short "face-to-face" teaching period with a limited number of students and increased epidemiological measures. Preparation for online learning was reduced to providing instructions on how to use the Teams platform and links to online teaching videos.

4. In your opinion, was the teaching staff ready to exchange face-to-face teaching practices with digital technologies? What do you perceive as the biggest challenges (lack of digital skills, the problem of adapting the teaching content to digital environment, student and staff motivation, the quality of digital platforms, the lack of digital resources, unequal position of staff and/or students in the new situation regarding skills, competencies, availability of technology and stable Internet connection, etc.)?

I) A number of the teaching staff with weak IT competencies was forced to train in the use of the MS Teams platform. Students accepted the transition to online classes much more easily and quickly, with additional problems for those who did not have adequate equipment or good enough access to the Internet.

The main problems were as follows:

• the reluctance of teachers to accept the inevitability of the application of digital technologies;
• otherwise insufficient quality of teaching and teaching material, which especially comes to the fore when it is necessary to adapt it for remote application;

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• fear on the part of teachers that their low-quality work will be discovered - now it is easily possible to record and have public insight into the work of every teacher;
• teacher's reluctance to offer more - now it is necessary to make full use of the time for teaching (no coming late to class, no idling and breaks, setting up equipment, calling students, etc.) because the speed of teaching is slightly higher than with standard frontal teaching classes.

II) The teaching staff were not ready for the transition to quality online teaching. Experiences were gained "on the fly". The reasons were multiple: the general social context (low IT development of society), insufficient training of teachers, unwillingness to adapt the content of the programme and activities planned for implementation according to the model of classical teaching to online teaching, and lack of technical and pedagogical support. The result: the use of digital technologies was a medium for traditional teaching and "knowledge transfer". Shared learning and group online discussion, creation of digital content for students, exchange of information with colleagues, critical analysis of the use of digital technologies, testing of digital technologies and discovery of new learning opportunities were missing.

5. ***From your standpoint, what important lessons and conclusions have you drawn from the sudden and unexpected transition to digital learning at your higher education institution during COVID19?***

- ***With what aspects of the transition to full online teaching during COVID19 are you satisfied?***

- ***What aspects need further attention and improvement when it comes to distance/full online learning and teaching at your HE or your teaching practice?***

I) The most important conclusion is that regardless of the environment (digital, standard, hybrid) the quality of teaching depends mainly on the competence of the teacher and his/her willingness to engage. It is good that the institution now has a quality platform for distance learning and working (MS Teams). More serious control of work in the online environment is needed so that negative practices and poor teaching quality are not transferred to the digital environment.

The state should come up with a strategy and adopt legal solutions that will enable knowledge assessment in the online environment. Also, I believe that changes or complete abolition of accreditation restrictions are needed when it comes to distance learning.

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II) The conclusion is that the transition to digital education was spontaneous. A quality transition to digital education requires the following: competence for meaningful, creative and responsible use of digital technologies; mastery of new online learning tools; harmonizing learning content and digital tools, taking on new roles; adjusting the way of monitoring and evaluating students, etc. I am satisfied that in the period of complete restriction of physical gathering, distance education, as the only applicable solution in such circumstances, enabled the realization of lectures and continuity in education. I am also satisfied with the establishment and use of the Microsoft Teams learning platform, which has opened up new possibilities. The improvement of work at higher education institutions requires the reorganization of the programme, which includes: updated (new) goals and outcomes, adequate contents and activities compliant with the use of digital technologies, new tasks that will include the use of digital tools, evaluation and self-assessment of digital literacy; defined ethical, safety and the value aspects, reconsidering one's attitude towards technology, etc. To improve the work process at higher education institutions, it is also necessary to provide ICT infrastructure, create digital teaching content and materials, change the approach to learning (learning through research, problem solving, critical thinking), training of all participants in the use of different software tools, practising different activities that take place without physical gathering (networked communication and interaction, interpersonal communication, simultaneous realization). The application of different forms of individualization would contribute to finding new opportunities for raising the quality of student activities in the realization of the programme, i.e. adaptation of the programme content to the individual characteristics of students, their previous knowledge, needs and interests, the possibility of choosing content and activities, better personal interaction and interaction with the content, improving communication that was scarce during online classes, etc.

6. ***To the best of your knowledge, does your HE institution have a positive attitude towards digital/distance learning?***

I) Bearing in mind the aforementioned, I believe that most teachers do not have a positive attitude towards distance education. Among the students, the opinion is divided - most of them understood the advantages (no need for physical presence and lower travel costs, free and easily accessible teaching materials, the possibility of revisiting lessons, the possibility of learning "anytime - anywhere", etc.), while a number of them are dissatisfied with the problems created by insufficiently prepared teachers, which also shaped their attitude towards distance learning.

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II) I think my institution does not have a positive and sufficiently responsible attitude towards distance education. There is no strategic plan that will make the institution ready for the rapidly changing and evolving digital environment.

7. ***To the best of your knowledge, does your institution have a long-term strategy regarding digital learning in HE?***

I) I am not aware of any strategy that has been publicly discussed.

II) To my knowledge, there is no long-term strategy for digital learning and teaching in higher education

8. ***If so, have you already initiated discussions and activities in order to regulate/improve every aspect of digital learning at your HE institution*:**

I) I am not familiar with it.

II)/

a) Have you discussed the possibilities of embracing full online/distance learning at your HE with the staff and/or colleagues?

I) I have proposed more than once that at least the master's classes, which are not conducted daily, and which create costs for the students and the institution, should be completely transferred to the online environment, but I am afraid that there is no understanding.

II) No

b) ***Have you consulted the teaching staff and/or colleagues about the challenges they encountered with the full transition to online learning?***

I) I have no one to consult.

II) No.

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c) ***Have you consulted the non-teaching staff and/or colleagues about procedural challenges they encountered with the full transition to online learning***

I) No.

II) No.

d) ***Have you obtained the opinions and attitudes of students at your institution about their experiences and challenges they encountered with full online learning?***

I) I conducted research with students of three generations of master's studies (throughout the duration of the epidemic).

II) Yes, I asked for students´ opinions. Their experiences during the period in which online teaching took place are different but mostly negative. Given the intensive use of digital technology in an extracurricular context, the comments received were unexpected. Namely, the reasons given by the students that were not in favour of online classes were: unstable internet connection, low internet speed, frequent interruptions during classes, outdated software versions, insufficient motivation, lack of knowledge to use digital tools, lack of practical exercises, inability to acquire practical skills, insufficient interest, negative emotions.

9. ***What were the results of those discussions and consultations? Were they beneficial for the next step towards regulating all aspects of digital learning at your HE institution?***

I) Students evaluated both distance learning and face-to-face teaching equally well. They are very satisfied with the quality and availability of teaching materials in the digital environment.

II) The opinion of the students is respected by the teacher to improve the situation, as far as it is in his/her domain. Students' opinions are the result of their real experiences and are certainly useful and can serve as a landmark in further changes, but I have no knowledge that they are respected, and taken into account in the process of regulation and improvement of digital learning in higher education.

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10. ***In your opinion, what are the biggest challenges when it comes to fully regulating and embracing distance learning at your HE institution and/or in the teaching practice?***

I) It is necessary to take a more liberal approach to the accreditation of online learning, e.g. to enable institutions to hold online classes within already accredited programmes without additional accreditation to a certain extent.

The main challenge is defining the control of non-academic behaviour of teachers (non-attendance/shortened lessons, quality), and especially the legal definition of methods of assessing students' knowledge and behaviour in the online environment. On this occasion, already existing technical solutions and work methods that enable knowledge checks in a digital environment should be taken into account.

II)Insufficient legal regulation that clearly defines principles, goals, principles, use and protection against abuse, etc.

11. ***Please, provide any additional comments you find useful and important when it comes to defining practices, procedures and policies regarding online/distance learning and teaching at HE institutions in general, or at your particular institution.***

I) The first impression is that digitization cannot eliminate the already numerous problems related to the poor organization of teaching, work and life in higher education institutions. There is no digital solution that can remove the weaknesses of unorganized teaching and low competence and unmotivated teachers.

Secondly, here you don't need to invent new solutions, but for a start, it is enough to apply the good practice of those who know what they are doing.

II) Defining distance learning strategies in higher education institutions requires:

-Alignment with the educational policy,

-Reconceptualizing study programmes concerning the way of learning, the relationship between teaching and practice, establishing the realization of practical teaching, the pace of students' work, the use of modern teaching methods, etc.

-Re-establishing a solid connection between the pedagogical and technological aspects of distance education; pedagogical (didactic-methodical) design of online classes (harmonizing content and digital tools, enabling co-construction of knowledge, organizing problem-based and cooperative online classes, discussions, debates),

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-Designing programmes, seminars, and workshops that will contribute to improving the development of digital competencies of teachers/students and increase the quality of distance learning,

-Greater investment in the technological equipment of higher education institutions, their availability and accessibility to all,

-Partnership and professional networking that higher education institutions establish between themselves and other institutions to exchange good practice and learning,

-Continuous review of efficiency through established indicators.

On December 28th, WEBIN conducted an online interview with a representative of policymakers, namely a member of the Accreditation Committee and the National Council for the Development of Higher Education. The interview lasted for 50 minutes.

The transcript of answers provided during the interview with the policymaker representative:

1.Were there any strategies and regulations regarding distance and/or full online learning at the higher education (hereinafter: HE) level prior to COVID19?

The field of distance education, before the COVID-19 pandemic, was regulated as follows: the Law on Higher Education of the Republic of Serbia, from 2017, namely: 1) Article 43. - A higher education institution can conduct a distance learning study programme following the work permit, and 2) Article 96.- More detailed conditions and ways of realizing the distance learning study programme are regulated by the general act of the higher education institution, the Rulebook on Standards and Procedures for the Accreditation of Study Programmes (Standard 15), and Distance studies in which the rules are described in detail - adopted at the session of the National Council for Higher Education on February 25, 2019. Based on the aforementioned documents, the National Accreditation Body implements the process of accreditation of distance learning study programmes (DLS) in higher education institutions in Serbia.

2.If so, were those strategies and regulations easily applicable in the situation of a sudden transition to full online education at HE institutions in the period of COVID19? If not, what were the main shortcomings of previously defined strategies and regulations?

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The mentioned rules were easily applicable in the situation of a sudden transition to the online environment only in cases if the higher education institution had available resources (for example trained teachers for DLS, equipment, defined computer platform, specialized software, multimedia contents, user interfaces, protection systems and access content, access to e-libraries, e-learning materials and textbooks, instructions for teachers, students and professional services in electronic form, etc.)

3. ***What important lessons and conclusions have you drawn from the sudden and unexpected transition to digital learning in HE during COVID19?***

- ***With what aspects of the transition to full online teaching in higher education during COVID19 are you satisfied?***

- ***What aspects need further attention and improvement when it comes to distance/full online learning and teaching at HEIs?***

There were no pre-existing alternative solutions for predicting the sudden and unexpected transition to digital education during the COVID-19 pandemic.

a. The complete transition to online learning has increased the level of mobility and the level of familiarity with all available distance learning resources.

b. Corrections and improvement of the distance learning process require continuous education in the field of using information and communication technologies in higher education institutions and raising the level of the institution's equipment in terms of IT resources and the number of educated teachers for online teaching.

4. ***To the best of your knowledge, is there a long-term strategy regarding digital learning in HE?***

To my knowledge, a specific strategy related to digital learning and teaching in higher education does not exist at the moment.

In one sentence, in the Strategy for the Development of Education and Training in the Republic of Serbia until 2030, under 5.2. The general goal, a special goal 2.1 was adopted - *Improving the quality of the supply of human resources and the results of higher education*, which states the following: "Additionally, part of the activity will be dedicated to providing financial resources for the training of teaching staff abroad and providing resources for teacher training for the implementation of study programmes for distance learning".

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5.***If so, have you already initiated public discussions and activities in order to regulate every aspect of digital learning:***

a) Have you discussed with university leaders, and HE staff about the future of distance learning in our country, and the possibility to fully legally regulate each and every aspect of this form of education at HE institutions?

b) Have you obtained the opinions of the teaching and non-teaching staff about the challenges they encountered with the full transition to online learning?

What were the results of those discussions and consultations? Were they beneficial for the next step towards regulating all aspects of digital learning in HE?

A public discussion about every aspect of online learning in higher education institutions at the national level has not been initiated so far.

a. Higher education institutions that implement distance learning study programmes according to the existing Law and Regulations and instructions for the accreditation of study programmes independently provide resources for distance learning (equipment, teacher training, e-materials, control, etc.). There is a difference in the level of technical literacy and competence of teachers and ICT equipment among higher education institutions.

*6.**In your opinion, what are the biggest challenges when it comes to full legal regulation of distance learning at HE institutions?***

For legal regulation, for the adoption of Strategies, Laws, and Regulations, which more closely determine and specify the conditions of distance learning in higher education institutions, an analysis (perhaps SWOT) is necessary to look at needs, possibilities, weaknesses, opportunities, etc.

7.***Please, provide any additional comments you find useful and important when it comes to defining strategies and policies regarding online/distance learning and teaching at HE institutions****.*

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For the implementation of distance learning study programmes, a higher education institution should provide resources (human and ICT) that will enable the teaching contents to be adopted with quality, and thereby ensure the same level of knowledge and competence of the graduated students and the same rank of the diploma as in the case of classical studies.

2.6.2 National Policy Recommendations - Desk Research

In the process of conducting desk research, the WEBIN team has identified the most relevant sources which could provide one with the data required for the completion of this particular project output. Thus, the most relevant sources analysed in the process were as follows: the Law on Higher Education of the Republic of Serbia, the Law on National Qualifications Framework of the Republic of Serbia, the Rulebook on Standards and Procedures for Accreditation of Study Programmes, Accreditation Outcomes (the official document published on the National Accreditation Body website), statutes of different higher education institutions (universities, faculties, colleges, vocational colleges, academies), published articles informing the public about the manner of implementing online education at HEIs during and after the COVID-19 lockdown period, etc. The aforementioned sources have been chosen with the following goals:

- To establish the current state of affairs about the legislative framework for the overall systemic implementation of distance learning
- To establish to which extent Serbian higher education institutions have already been engaged in accrediting distance learning study programmes
- To try to determine how distance learning was functional during the period of the COVID-19 lockdown
- To establish the general attitude of students and the staff at higher education institutions in Serbia towards fully online courses during the COVID-19 lockdown, as well as in the period which followed.

According to the official Accreditation Outcomes document, at this moment there are only 74 study programmes out of 3092 in total which have been accredited for distance learning. The majority of those study programmes were accredited even before the pandemic, and the largest number of those (65%) are implemented in private universities. The fact that different higher education institutions engage in accrediting distance learning study programmes indicates that the Law on Higher Education of the Republic of Serbia has legally regulated the institute of distance learning. Namely, Article 43 of the Law states that a higher education institution can organise distance learning studies, following the work permit issued by the Ministry at the

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request of the higher education institution. The work permit also contains information about how a certain study programme is implemented (on-site or distance learning), the maximum number of students that can study in a distance learning mode, as well as if a certain HEI can perform educational activities outside the premises. However, the main limitation of the Law regulating distance learning at higher education institutions is the obligation of all students, even those who study online, to take exams on the premises, i.e. at the university. The Law does not allow for taking exams online.

Accreditation of distance learning study programmes has been regulated in detail by the Rulebook on Standards and Procedures for Accreditation of Study Programmes, Standard 15. Thus, it is possible to assert that distance learning is legally regulated and available to students for the aforementioned 74 study programmes. It is important to emphasise, however, that the idea of distance learning in Serbia about employment opportunities is still lagging behind some universities and practices abroad. Namely, employers in Serbia remain suspicious about diplomas issued after graduating from a distance learning study programme, even though the Law is quite clear that distance learning diplomas are no different from diplomas obtained after graduating in a traditional manner. Dragan Đukić from the National Employment Service stated that employers often ask to check the study programme of a potential employee and insist on those who had obtained their diplomas in a traditional manner.

When one refers to distance learning, one needs to make a significant difference between distance learning before and after the COVID-19 pandemic. Before the pandemic, distance learning was a matter of choice. Amid the pandemic, it became a matter of necessity. Furthermore, before COVID-19, distance learning was rarely implemented as full online engagement but rather as a blended form of education for those who needed to resort to this particular form of learning. During the COVID-19 lockdown, everyone was forced to resort to fully online learning without prior preparation. Therefore, one can safely assert that distance learning before COVID-19 was not a topic to which the academic community attached special importance. After this unfortunate global event, distance learning has become one of the dominant topics in academic circles, especially at the level of higher education. It remains to be seen if the number of accredited distance learning study programmes will increase in the next accreditation period.

As it has previously been pointed out, few higher education institutions in Serbia were ready to mitigate to some extent the consequences of the 2020 lockdown. The majority of higher education institutions found themselves caught off guard and the process of adjustment to a new way of learning and teaching was long and awkward. Students and staff alike worked together to make full online learning work during the lockdown meaningless and fruitful. Thus, one can assert

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that the COVID-19 pandemic sped up the process of accepting the reality of distance learning, and forced both students and professors to acknowledge the inevitability of digital education.

However, it is not the same thing to be forced to online transition and to slowly develop study programmes and prepare for this form of work. Even though distance learning during the COVID-19 lockdown was highly beneficial for all levels of education, higher education included, students and staff alike do not show great enthusiasm for full online education in the future. Namely, more than 70% of young students from Serbia dislike the idea of fully online learning, while the blended or hybrid form of learning appears to be acceptable. Thus, it appears that some aspects of distance learning do sound appealing and students are in favour of having some elements of distance learning present in their future education. However, full online education is not something that the majority of students or the teaching staff would like to implement.

2.6.3 National Policy Recommendations - Implementing the eLearning readiness checklist for HE institutions

WEBIN applied the eLearning readiness checklist for HE institutions to a number of 20 teachers. The checklist was adapted into a questionnaire and distributed via Google Forms online questionnaire. Prospective respondents were invited via mail to follow the link and provide answers to posed questions. The respondents gave their responses to 22 selected questions from the overall checklist created within the IO1 of the Erasmus + OnlineHE project. The questions within the checklist aimed at inquiring into the existing strategies for distance education at respondents´ respective institutions, the manner and extent of respondents´ participation in creating the aforementioned strategies, the procedures, rights and responsibilities of participants in online learning, the capacities of HEIs for implementing online courses as well as skills and readiness of the staff and students to participate in this form of education. The questions also inquired into the possibilities of continuous professional development, proper evaluation procedures which can be applied to the online environment, as well as the readiness of HEIs to make their full transition to online learning.

When asked if there was a defined strategy for distance education at their respective higher education institutions, 30% of respondents gave affirmative answers, 30% provided negative answers, 35% were indecisive, and only 5% asserted that only a few aspects relating to online learning have been defined.

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Figure 1. The strategy of distance learning at higher education institutions

The number of respondents who feel included in the process of decision-making and improving the strategy of online education of their respective institutions as opposed to those who feel excluded is the same: 50%.

Figure 2. Inclusion of respondents in the process of decision-making when it comes to the strategy of distance education

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When it comes to the participation and impact of the local community on the strategy of online education in respondents ´ higher education institutions, as much as 60% of respondents are not aware of any kind of cooperation between the local community and their institution, 30% do not believe that such cooperation exists at all, while only 10% of respondents are convinced that such cooperation exists.

Figure 3. Participation of the local community in defining the strategy of distance learning

When resorting to digital technologies in the process of online education, 50% of respondents totally agree that there are clear copyright procedures and licensing rules for the purposes of online teaching and learning, 10% partly agree, 25% partly disagree, and 15% of respondents totally disagree.

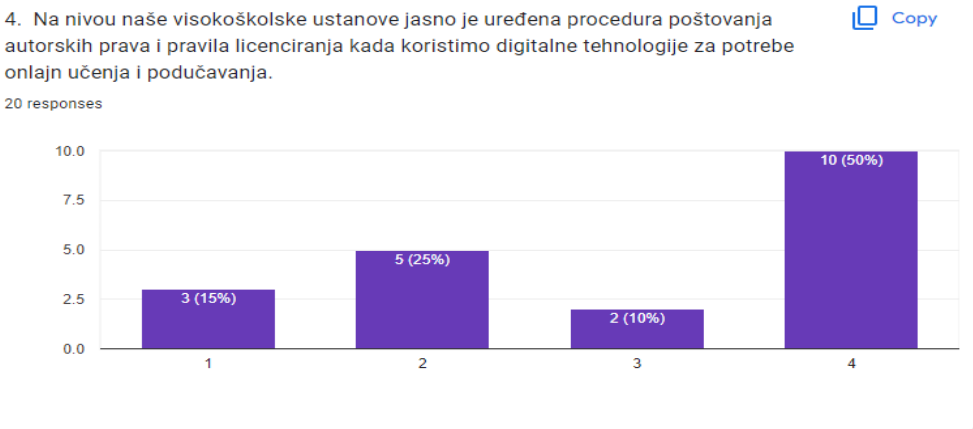

Figure 4. Copyright procedures and licensing rules in distance education

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Furthermore, 40% of respondents totally agree that the rules and obligations of all participants in the process of online education have been clearly defined, 35% partly agree, 15% partly disagree, and only 10% totally disagree.

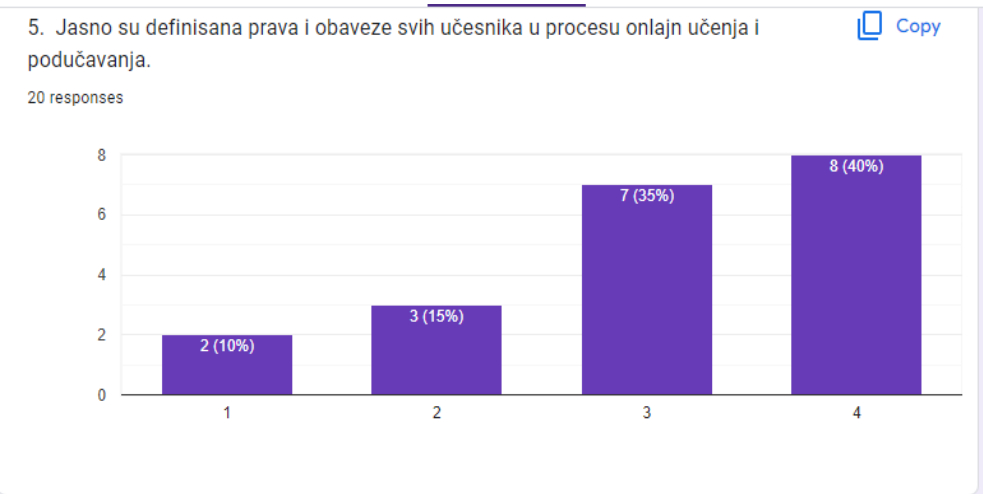

Figure 5. Rules and obligations of all participants in the process of distance education

The largest number of respondents (40%) totally agree that there are debates and conversations at the level of the institution about the advantages and disadvantages of online learning, while only 5% totally disagree with this assertion.

Likewise, as much as 60% of respondents totally agree that their HEIs have the necessary equipment to support online learning and teaching, while only 5% totally disagree with this assertion. However, when it comes to digital devices which a higher education institution can share with students and let students use at home when they need them, as much as 55% of respondents believe that their HEIs do not possess such capacities, while 15% believe that such opportunities exist at their institutions.

It appears that HEIs generally have access to broadband internet as 50% of respondents totally agree with this assertion, while 20% partly agree. The same applies when it comes to the availability of technical assistance in the process of online education. However, when it comes to procedures for identifying challenges encountered by students from underprivileged groups, the majority of respondents either totally (15%) or partly disagree (30%) with this assertion, while as much as 25% are not certain that such procedures exist. The teaching staff also mostly totally disagree (20%) or partly disagree (25%) with the assertion that there is a plan at their HEIs to face the identified challenges.

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One of the most worrying pieces of information comes from the responses relating to the availability of online education to students with special needs. As much as 50% of respondents do not believe that students from this particular group have access to assistive technology, while 30% do not know this information.

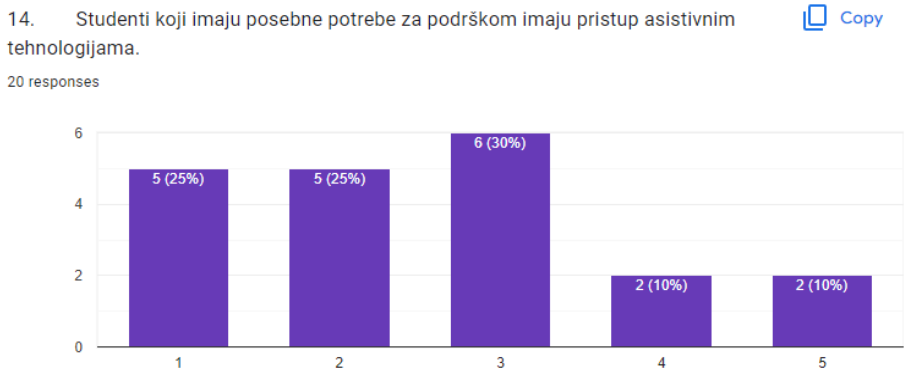

Figure 6. Access to assistive technologies of students with special needs

When asked if they were aware of existing repositories and/or online libraries which are available for online learning and teaching, the largest percentage of respondents had no knowledge of this (40%), while 30% partly disagreed and 10% totally disagreed with this possibility.

It is encouraging to learn that the largest number of respondents (50%) totally agree with the assertion that their institutions possess the necessary platforms and tools for implementing the process of online education.

As much as 40% of respondents are not aware of the possibility of a continuous professional improvement when it comes to digital skills and use of digital technologies. On the other hand, 20% totally agree, and 20% partly agree that such possibility exists.

The evaluation of students in the course of online teaching and learning is especially delicate subject. Namely, 30% of respondents partly disagree with the assertion that there are clear rules and procedures of evaluating students in the course of online education, while 30% are indecisive about this assertion.

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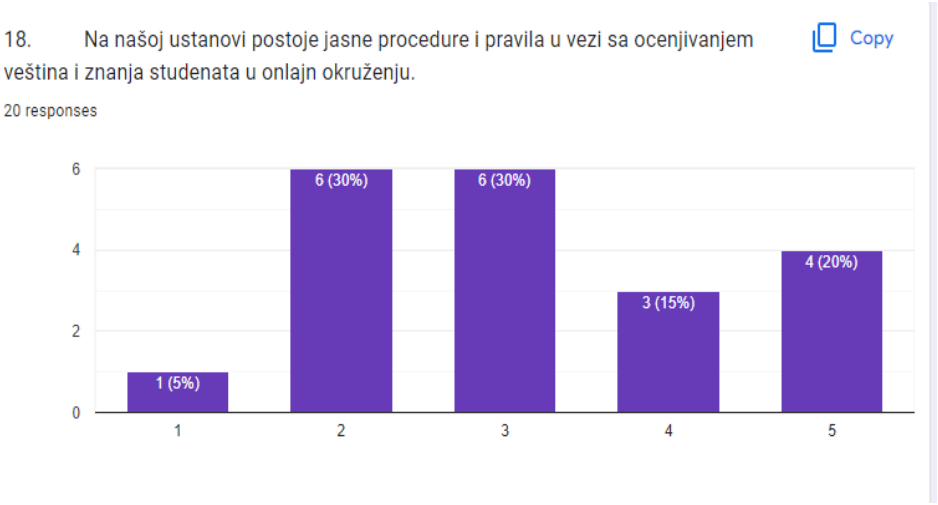

Figure 7. Procedures and rules regarding online assessment

It is somewhat discouraging to learn that only 10% of respondents agree that it is possible to properly and fully evaluate students in the course of online learning and teaching. As much as 50% of respondents either totally or partly agree with this assertion, while 40% are indecisive.

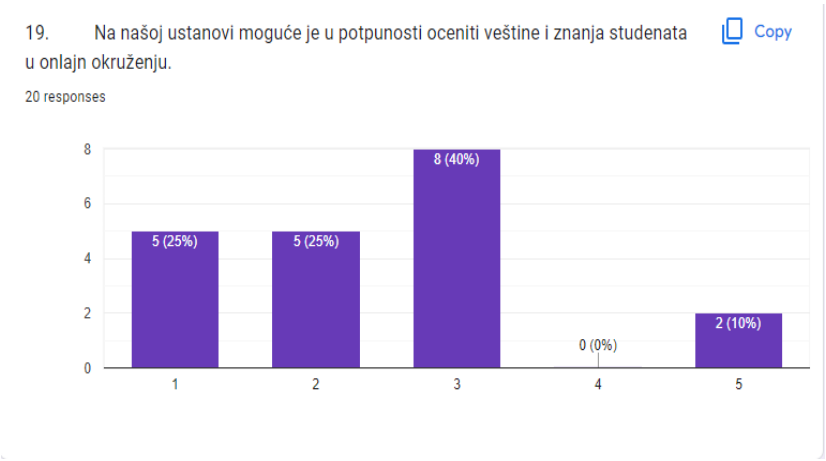

Figure 8. The possibility of assessment of skills and knowledge in the online environment

Furthermore, only 10% of respondents totally agree that their institution leaders encourage them to use digital technologies for the purposes of evaluation, while the largest number of respondents (75%) is either indecisive or disagree with this assertion.

One of the key questions related to the readiness of higher education institutions to fully embrace online education. In response to this assertion, 20% of respondents totally disagree,

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35% partly disagree with this assertion, while 30% are indecisive. Only 10% totally agree that their HEIs are ready for full online education.

Figure 9. Readiness for full transition to online learning

Finally, respondents were asked to identify the most important factors for a successful online education. The majority of respondents agree that the most important factor is that all participants in the process possess adequate digital skills (95%), that there are available digital tools to implement online education (85%), and that there are rules and procedures regulating this form of education (75%).

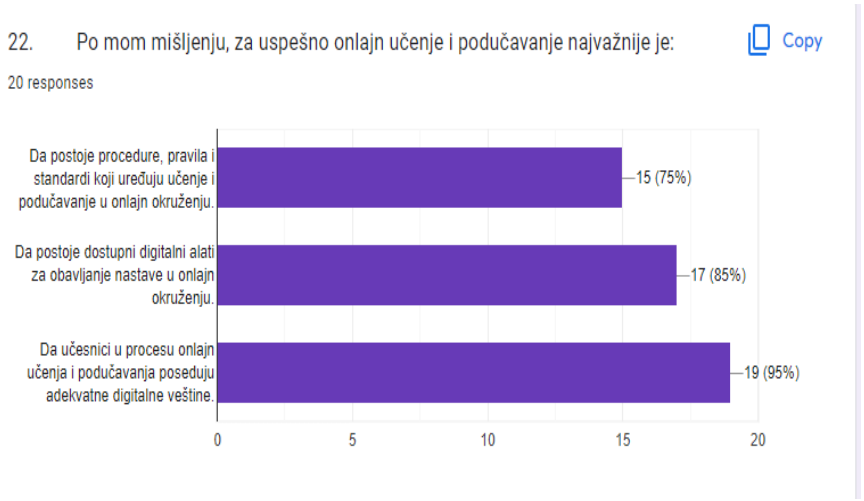

Figure 10. Key factors for successful online education

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3. Conclusions and Recommendations

The transition to eLearning during the COVID-19 pandemic has changed the academic community's attitude towards online learning, i. e. it has prompted a rethinking and updating of long-established teaching and learning practices.

When it comes to the institute of distance learning before the COVID-19 pandemic, one can assert based on the conducted research studies in all partner countries that higher education institutions were not particularly ardently engaged in this form of learning, even though in the majority of partner countries there were accredited distance learning study programmes.

However, the practical implementation of distance learning programmes was not in the focus, nor was it enthusiastically embraced even though it was high time for higher education institutions to welcome the digital era into their classrooms and practices. This is especially true for full online learning courses, bearing in mind that even before the COVID-19 pandemic distance learning was, according to studied sources, mostly equated with the concept of hybrid learning, and less with the concept of a complete transition to online teaching.

With the outbreak of the pandemic, the situation changed overnight and higher education, like all other levels of education, had to adapt to the new circumstances. In that respect, the legal framework was no longer an issue, since every higher education institution (with or without accredited distance learning programmes) had to switch to fully online learning. What was found to be one of the major deficiencies in the system of higher education was a lack of detailed strategies, rules, instructions and practices in partner countries which would make this sudden transition to online learning a bit more seamless. Nevertheless, the situation required a quick reaction and all participants in higher education had to invest efforts to mitigate the effects of the pandemic as much as possible and prevent the complete cessation of educational activities at HEIs.

In that respect, the respondents participating in the research interviews and the surveys agree that the transition to digital learning during COVID-19, regardless of all the obstacles and difficulties, was extremely important for attenuating the consequences of the pandemic and maintaining the continuity of education to the extent that it was possible. Thus, the transition to full online education was eventually functional, mostly due to the enthusiasm and adaptation abilities of the staff and students who directly depended on the speed of adaptation to the new situation.

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The main difficulties imposed by the sudden transition to online education recognised in different partner countries by the research participants were as follows:

- The lack of thoroughly developed long-term distance learning strategies with precise instructions for distance learning in higher education, i.e. insufficient legal regulation that clearly defines principles, goals, use and protection against abuse, etc
- The reluctance of teachers to accept the inevitability of the application of digital technologies;
- Difficulties encountered in the attempt to adapt the teaching methods and materials for remote application;
- Insufficient levels of digital knowledge and skills in teachers
- Lack of technical and pedagogical support
- Lack of a concrete and official legal definition of methods of assessing students' knowledge and behaviour in the online environment
- Significant differences in terms of capacities between different higher education institutions (big universities offered better conditions and adapted more easily to the new circumstances, while colleges, academies and vocational colleges generally encountered much larger difficulties in adapting to the new situation).

Bearing in mind the identified obstacles and difficulties concerning fully online education and distance learning in general, it is possible to single out the most valuable recommendations:

- Developing competence for meaningful, creative and responsible use of digital technologies;
- Harmonising learning content and digital tools, taking on new roles;
- Adjusting the way of monitoring and evaluating students
- Re-organization of study programmes, which includes: new goals and outcomes, adequate contents and activities with the use of digital technologies, a new approach to digital evaluation and quality assessment; regulating the ethical and safety aspect of digital learning; reconsidering one's own attitude towards technology;
- Providing higher education institutions with ICT infrastructure; creating digital teaching content and materials; changing the approach to learning (learning through research, problem solving, critical thinking); training all participants in the use of different software tools; practicing

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different activities that take place without physical gathering (networked communication and interaction, interpersonal communication, simultaneous realization)

- Providing students with the support they need to succeed in online courses, including academic advising, tutoring, and technical assistance
- Online courses should encourage interaction between students and instructors, as well as among students, to create a sense of community and foster a collaborative learning environment.

Furthermore, defining distance learning strategies in higher education institutions requires the following:

- alignment with the educational policy,
- reconceptualizing study programmes in relation to the way of learning, the relationship between teaching and practice, establishing the realization of practical teaching, the pace of students' work, the use of modern teaching methods, etc.
- establishing a solid connection between the pedagogical and technological aspects of distance education; pedagogical (didactic-methodical) design of online classes (harmonizing content and digital tools, enabling co-construction of knowledge, organizing problem-based and cooperative online classes, discussions, debates),
- designing programs, seminars, workshops that will contribute to improving the development of digital competences of teachers/students and increase the quality of distance learning,
- greater investment in the technological equipment of higher education institutions, their availability and accessibility to all,
- partnership and professional networking that higher education institutions establish between themselves and with other institutions to exchange good practice and learning,
- continuous review of efficiency through established indicators.

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