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Digital Skills of Albanian Lecturers and Students From the Humanities During Pandemic

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The new cultural turn was introduced in Albanian higher educational institutions initially through the implementation of new student-centred teaching methods and with technology, which required the acquisition of digital competence. In the context created by the pandemic situation, three questions were posed to university lecturers:

- What is the experience of teachers and students during online learning?
- What are the digital competencies of teachers and students after pandemic?
- Does this situation indicate the creation of a new teaching culture within Albanian higher education?

Survey-based methodologies are at the base of this study. The groups surveyed include Bachelor and Professional Master's level students from two universities, the University of Tirana and the University of Elbasan, but also 60 lecturers from the Faculty of Humanities at the University of Elbasan and the Faculty of Foreign Languages at the University of Tirana. The surveys drawn from lecturers reflect teaching experience during the COVID-19 crisis. Participants had limited prior exposure to online teaching, and their pre-pandemic digital skills were lacking. However, the pandemic experience improved their skills, albeit with minimal supportive training and self-directed learning. Surveys reveal that technology's incorporation in online teaching has not substantially enhanced students' digital capabilities despite the prevalent use of basic tools.

Keywords: higher education, online teaching and learning, digital skills, new culture of teaching

Introduction

Albania is an important partner country for the European Union in the Western Balkans region, with a young population and a dynamic economy. Though it faces significant challenges to achieve the sustainable development goals (SDG), e.g., in the industry, innovation, and infrastructure (SDG 9), which partly reflect low spending on research and development (R&D) and innovation, and also in low-quality higher education (OECD, 2021, p. 622), the country has been a full member of the Bologna Process/European Higher Education Area since 2003 and has made significant progress in adopting three-cycle academic programs and the European Credit Transfer and Accumulation System (ECTS).[1]

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[1] The European Credit Transfer and Accumulation System (ECTS) is a tool of the European Higher Education Area with aim of making study programms and courses comparable at the international level. It helps students move between countries and have their academic qualifications and study periods abroad fully recognized. ECTS allows credits taken at one higher education institution to be counted towards a qualification studied for at another. ECTS credits represent learning based on defined learning outcomes and their associated workload… See: https://education.ec.europa.eu/education-levels/higher-education/inclusive-and-connected-higher-education/european-credit-transfer-and-accumulation-system, June 1999.

Higher education in Albania has gone through various important phases during its development since the 1990s (Xhafa, 2013). It has gradually moved towards quality improvement and sustainable development (Paparisto, 2018) and international cooperation (National Strategy for Science, Technology and Innovation 2017-2022). Following Albania's signing of the Bologna Declaration in 2003, significant reforms were undertaken—especially from 2013—including the enactment of the Higher Education Law (Law No. 80/2015) and the National Strategy on Higher Education 2014-2020. These aimed to align and anticipate changes in the labor market, social development through technology and innovation, and the pursuit of quality scientific research and teaching (UNESCO Education Strategy 2014-2021). This transformation was linked to the creation of a new culture of development in higher education in Albania (Paparisto, 2018), which embraced the concept of internationalization and was incorporated into the improvement of Law No. 80/2015 and subsequent strategies.[2]

In this context, several changes have been applied, since 2013, such as greater diversity in program profiles, financial autonomy of universities, infrastructure investment for classrooms, the use of technology in teaching, the renewal of curricula and pedagogical methods, the improvement of the assessment system, and the qualification of academic staff.

Particularly relevant for this chapter are the changes stimulated in relation to didactic: A new professional culture based on quality standards (Xhafa, 2013) and the integration of research within teaching (Laze, 2011) has been fostered. This entailed also a critique of the prevalent professional culture within Albanian universities, characterized by a lecturer-authoritative paradigm, where students predominantly engage in passive listening and transcribing, resulting in a mechanistic replication of the lecturer's transmitted knowledge. Traditionally, Albanian students were not actively involved in the teaching process (Tarifa, 2012).

Since policies and strategies connect the modernization of teaching and learning explicitly to the adoption of technology, as set out in the policies and strategies (Ministry of Education, Sport and Youth/UNICEF (2021)). This has found further expansion in the National Education Strategy 2021-2026, drafted by the Ministry of Education[3] and implemented by higher education institutions, where the following points are emphasized:

a. The need to prioritize quality teaching, learner-centred approaches and the use of innovative teaching methods. The aim is to improve the content of scientific research, based on national priorities and country's current development. The quality of education should be enhanced by providing opportunities for academic staff and students to develop independent research skills.

b. The utilization of information and communication technology (ICT) has significantly influenced the transformations in higher education, both in terms of program content and didactic. Through ICT, students today have access to quality learning materials, while distance and blended learning programs offer maximum flexibility in terms of time commitments. It is important to continuously advance ICT infrastructure and digital services in higher education (National Education Strategy 2021-2026, pp. 93-101).

[2] For the realization of this mission, the Council of Ministers of Albania approved for the first time the "National Strategy for Science, Technology and Innovation 2009-2015". This strategy prioritizes the improvement of infrastructure and the incorporation of new technology, which supports teaching and scientific research. The "National Strategy for Science, Technology and Innovation" (2017-2022) is based on one of the principles that support internationalization in the field of scientific research, strengthening these links both at the regional and international level. Involvement in projects such as CEEPUS, ERASMUS +, Horizon 2020, and other EU-funded programs has made the mobility of students and academic staff possible, bringing the best practices from EU universities to the Albanian higher educational system.

[3] Actors who deal with innovation and technology need material resources (funds, equipment, laboratories) and human capital (students, faculties, lecturers, scientific researchers of the industry sector, etc.) and institutional structures that participate in the innovation ecosystem (National Strategy for Science, Technology and Innovation 2017-2022, p. 164).

Infrastructure development at the University of Tirana and the University of Elbasan has provided opportunities for lecturers and students, such as the introduction of the Education Management System (EMS).[4] However, it has been challenging, because of lack of sufficient support.

Despite efforts to develop and implement digitalization strategies in the last decades, Albanian higher education institutions were not prepared to the challenges that the pandemic brought up. The Albanian higher education system lacked the necessary infrastructure for online education since it was designed inherently for face-to-face instruction. The infrastructure investments made in the buildings of higher education institutions did not anticipate the disruptions that could occur during such exceptional situations.[5]

This situation prompted us to ask questions that remain at the centre of this chapter:

- What is the experience of teachers and students during online learning?
- What are the digital competencies of teachers and students after pandemic?
- Does this situation indicate the creation of a new teaching culture within Albanian higher education?

Academic staff and students did not possess the necessary knowledge to use platforms such as Zoom, Google Classroom, Microsoft Teams, etc.

These challenges included the quick acquisition of digital competencies by academic staff and students, a phenomenon also observed in higher education institutions in the EU[6]. This trend gradually changed teaching and learning practices from teacher centred approaches to being more student centred especially teaching via digital technologies, but various legal[7] and infrastructural barriers hindered this progression.

Theoretical Framework

Online learning may be defined as "a course in which most or all of the content is delivered online" and "which typically have no face-to-face meetings" (Allen & Seaman, 2003, p. 6). Two crucial elements for a successful online classroom may be seen in the acquiring of adequate pedagogical and technical skills (Duffy & Kirkley, 2004; Grabinger, 2004). On the one hand, the success of online courses and curricula depends largely on the use of student-centred pedagogical practices (Duffy & Kirkley, 2004; Grabinger, 2004). The lecturer is expected to design, create, and facilitate rich interactions among learners in order to keep them motivated in online contexts (Duffy & Kirkley, 2004; Grabinger, 2004). The COVID-19 pandemic had in fact a profound impact on teaching philosophies and learning models (Gómez-Fernández & Mediavilla, 2021). On the other hand, teachers need to be able to select the tools that will allow them to carry out their instructional goals. This

[4] University Management System (EMS) is the administration platform of any university, which enables real-time access to information about students, lecturers, university, subjects, timetables, grades, and other related information. Through the University Management System, students have the opportunity to see the academic offer, register to the courses, communicate with lecturers, send assignments, communicate with the secretary, etc.

[5] Albania faced two extraordinary situations: the earthquake of November 2019, which paralyzed the activity of education in general in Albania, and especially higher education as many university buildings were damaged and learning was halted for a period of two months, and of course with the extraordinary situation of the COVID-19 pandemic, commencing in March 2020.

[6] Many important educational institutions in developed countries have been offering distance learning programs at the level of study courses or even full study programs for more than a decade. The European Commission in January 2018 announced the Action Plan for Digital Education within the territory of the EU (EU Commission, 2019). According to Eurostat (Eurostat, 2020), during 2019 within the European Union 8% of the population between the ages of 16 and 74 attended online courses: In 2017 this figure was 7%, while in 2010 it was only 4% (Eurostat, 2019).

[7] The Albanian legal basis does not provide for online teaching. This situation has conditioned the online learning process during the pandemic. This situation has been regulated by a decision-making act by the higher education institutions themselves during the pandemic period, without legalistic recourse.

requirement may represent a significant challenge for teachers who may have entered the profession at a time when technological expertise of this kind was not required.

According to the European Union Council (European Union, 2018), digital competence is one of the eight key competences for lifelong learning.[8]

There are several definitions of the concept of digital competence. According to Krumsvik (2011, pp. 44-45), digital competence may be seen as "teachers' ability to use ICT in a professional context with good pedagogical judgment and their awareness of its implications for learning strategies and digital education of students". It is considered a fundamental skill for educators who, with ICT, need to manage the transmission of scientific curriculum content with appropriate pedagogical tools to improve students' understanding and knowledge development (Krumsvik, 2009).

In the context of teaching and learning in higher education, particularly relevant are skills related to assessment, collaboration, and student responses (Cabero-Almenara, Guillén-Gámez, Ruiz-Palmero, & Palacios-Rodríguez, 2022).

The use of ICT plays therefore a fundamental role, necessitating the development of digital skills for both educators and students (Gómez-Fernández & Mediavilla, 2021).

Students are indeed key actors in the process, though despite all of the more recent developments, mostly do not possess the required level of digital competence (Cabezas & Casillas, 2017, pp. 61-72).

Their competences should be promoted by the lecturers, in their role of facilitators of the learning process (Cabero-Almenara et al., 2022). Indeed, students with higher digital competence easily engage in the academic learning process, demonstrate enthusiasm, and develop creative abilities and critical thinking independently (Groves, Sellers, Smith, & Barber, 2015). Once they develop the ability to create and manage content, information, communication tools, and to solve technological problems, these students become highly competitive in meeting today's demands (Eger et al., 2018, pp. 851-866).

Table 1

DTC Elements/Areas According to the DigCompEdu Framework (Redecker & Punie, 2017)

Competence	Definition
Professional engagement	Mastery of digital technologies for communication, collaboration, and professional development.
Digital resources	Creation, search, exchange, and management of digital content.
Teaching and learning	Management, organization, and use of digital technologies in teaching and learning processes.
Assessment and feedback	Use of digital technologies and strategies to enhance assessment and feedback processes.
Student empowerment	Use of digital technologies to enhance student engagement, personalization, and active involvement in their learning.
Development of students' digital competence	Empowering students to creatively and responsibly use digital technologies for information, communication, content creation, well-being, and problem solving.

Methodology

In this report, we present the results of a survey conducted with students and lecturers from the Faculty of Foreign Languages at the University of Tirana, and the Faculty of Humanities at the University of Elbasan. The survey was conducted in March and April 2021. The study sample consisted of a total of 280 students, selected through a random sampling technique. From the University of Tirana, 100 students from the Bachelor's program,

[8] The other seven competencies are literacy; multilingual competence; STEM; citizenship; entrepreneurship; social competence and learning to learn; and cultural awareness and expression.

first and third year, and 80 students from the Professional Master's program, first and second year, were surveyed. From the University of Elbasan, 60 students from the Bachelor's program, first and third year, and 40 students from the Professional Master's program, second year, were surveyed. The students' ages ranged from 19 to 23 years. 71% of the participants were female and 29% were male.

The sampling of academic staff was conducted with 60 lecturers in humanities (30 from each of the aforementioned universities). Demographic and institutional data were collected from both universities. The majority of respondents were female, comprising 70% of the academic staff, belonging to the age group of 34-55 years. Around 65% of the respondents work as lecturers, while those remaining are assistant lecturers.[9] 70% of the respondents have five or more years of teaching experience.

The questionnaires were distributed through Google Forms to all members of the academic staff and students. The questionnaire responses were collected and processed anonymously. Based on the results, statistical data were generated to highlight the main issues perceived by teachers and students.

Overview of the Data Collection Instrument

The survey instrument, aimed at both lecturers and students, consists of questions that capture subjective perceptions of their perspective on the development of online teaching during the COVID-19, their perception about the development of their own digital competence and possible long term effect on their teaching culture.

The survey instrument is divided into three sections:

Section I: Demographic data.

Section II: Information relating to knowledge of online learning, organization, methodology, and resources. It consists of seven closed-ended questions with multiple-choice answers.

Section III: focuses on the digital competencies of teachers following the pandemic and includes five closed-ended questions related to three specific digital competencies.

Main Findings From the Academic Staff Survey

Data on knowledge of online learning. This section included questions that provided information regarding the teachers' knowledge of online learning during the COVID-19 period.

1. Have you conducted online teaching before the COVID-19 situation?

In both universities, 37 (62%) lecturers state that they had never conducted online teaching. 11 (18%) state that they had conducted such teaching but rarely in a semester, eight (13.5%) state that they had conducted online teaching occasionally, and four (6.5%) did not respond to this section.

2. What was your level of knowledge concerning online learning before COVID-19?

14 lecturers (24.5%) had no knowledge of online learning, 13 (21.5%) had sufficient knowledge of basic concepts, 24 (39.5%) had good knowledge, five (8.5%) had very good knowledge, and four (6%) of the respondents did not answer this question.

[9] In the "lecturers" category, academic staff members are included who engage in teaching and research activities. This category encompasses academic personnel who hold a doctoral academic degree, and have at least three years of teaching experience. This category is employed through an open-ended contract.
In the "assistant lecturers" category, academic staff members are included who engage in teaching and research activities. Assistant lecturers must have at least a "Master of Science" diploma. Assistant lecturers are employed through a fixed-term contract.
Law No. 80/2015 for higher education and scientific research in the study of higher education in the Republic of Albania. Article 59, p. 45, https://arsimi.gov.al/wp-content/uploads/2018/07/AKTET_NENLIGJORE.pdf.

Table 2

Divided According to the Universities of Tirana and Elbasan for Knowledge About Online Learning

University	No knowledge at all	Little knowledge of basic concepts	Good knowledge	Very good knowledge	No answer
Tirana	14.5%	13.%	23.5%	5.5%	3%
Elbasan	10%	8.5%	16%	3%	3%
In total	24.5%	21.5%	39.5%	8.5%	6%

3. How did you acquire your knowledge about online learning? (Multiple choices could be selected)

41% of the lecturers acquired their knowledge through self-learning. Training and collaboration with colleagues have also been influential factors in this regard.

Table 3

Data About Knowledge of Online Learning, Divided by Universities

Questions	Self-taught	Through training	Help from colleagues	Others	In total
University of Tirana No. of lecturers	25	15	18	8	66
University of Elbasan No. of lecturers	22	9	13	5	49
Total No.	47	24	31	13	115
Total No. in %	41%	21%	27%	11%	100%

4. How has the experience during the pandemic affected your knowledge of online teaching?

62% of participants state that their knowledge has increased. 38% claim that they did not have a significant impact because their access to technology is limited due to their age. However, among the group that had good knowledge (39.5%), the impact of this experience is not very high.

5. What types of teaching materials do you use? (Multiple choices were allowed, hence the larger number of responses)

Most commonly used materials are videos and images. 54% of teachers acknowledge these as didactic materials. E-books are used to a lesser extent (31%) because scientific literature, especially in the Albanian language, is not widely available in an e-book format. Additionally, this kind of scientific literature is also lacking in university libraries (Haska, 2013).

Table 4

Types of Didactic Materials Used, Divided by Universities

Materials	Videos/images	E-book	Online forums	In total
University of Tirana No. of lecturers	27	18	9	54
University of Elbasan No. of lecturers	22	11	5	38
No.	49	29	14	92
No. in %	53%	32%	15%	100%

6. Which of the used methods from the lecturers were most effective? (Multiple choices were allowed).

The methods which gave the lecturers the impression to be effective in times of online teaching were the creation of multimedia content (24%), individual tasks/projects (27%), and case studies (37.8%).

Table 5

The Types of Methods and Techniques Used, Divided by University

Methods	University of Tirana	University of Elbasan	Total No.	No. %
Creation of multimedia content	16	9	25	24%
Group cooperation	5	7	12	11.2%
Individual assignments/projects	13	16	29	27%
Case studies	19	18	37	37.8%
In total	56	50	106	100%

Data on the digital competence of academic staff following the COVID-19 situation.

1. What level of digital competence do you have?

In March-April 2021, after around one year online-teaching, most of the teachers participating to the survey (48.7%) attested their digital competence at the elementary level and 36.6% at the beginner level. Just 11.8% and 0.03% respectively have assessed their digital competence at an intermediate or advanced level.

Table 6

Self-Assessed Level of Digital Competence

No.	Level	No. UT	No. EU	No. total	In %
1	Beginner	10	12	22	36.7%
2	Elementary	14	15	29	48.3%
3	Intermediate	5	2	7	11.7%
4	Advanced	1	1	2	3.3%
In total		30	30	60	100%

2. How proficient are you in Field 1 "Professional Engagement"?[10] (Mastery of digital technologies for communication, collaboration, and professional development)

35.6% assessed their competence at the lowest level, 36.6% at a sufficient level, and 26.8% at a good level. Just one respondent assessed their professional engagement as very good.

Table 7

Presentation of the Teachers Interviewed for the Proficiency of Field 1 Professional Engagement

No.	Level	No. UT	No. UE	No. total	In %
1	Very poor	8	13	21	35.0%
2	Poor	11	11	22	36.7%
3	Good	10	6	16	26.7%
4	Very good	1	-	2	1.7%
In total		30	30	60	100%

3. How proficient are you in Field 2 "Digital Resources" (Creation, search, exchange, and management of digital content)

[10] All of the field competences refer to the DTC elements/areas according to the DigCompEdu framework (Redecker & Punie, 2017) mentioned at the theory framework section of this paper.

From the received responses for this question, it is observed that in both universities, there is a low level of competence in 53% of teachers. The indicators for the sufficient and good levels are relatively similar. However, there is no indication for the very good level.

Table 8

Presentation of Interviewed Lecturers for Mastery of Field 2 Digital Resources

No.	Level	No. UT	No. UE	No. total	In %
1	Very poor	18	14	32	53.0%
2	Poor	6	9	15	25.0%
3	Good	6	7	13	22.0%
4	Very good	0	0	0	0.0%
In total		30	30	60	100%

3. How proficient are you in Field 3 "Teaching and Learning" (Management, organization, and use of digital technologies in teaching and learning processes.)

It is evident that in both universities, there is a notable focus on acquiring competence at a similar level to the other two fields. This demonstrates the fact that there is a deficiency in the level of competence for these three fields, and teachers need to raise their level of digital competence through training, as well as expanding their competence in other areas that are not covered by this questionnaire.

Table 9

Presentation of Interviewed Lecturers for Mastery of for the Field 3 Teaching and Learning

No.	Level	No. UT	No. UE	No. total	In %
1	Very poor	10	12	22	36%
2	Poor	12	14	26	43%
3	Good	8	4	12	21%
4	Very good	0	0	0	0
In total		30	30	60	100%

Discussion

The responses from the survey of the teachers and students provide valuable insights into their subjective experience and perceptions of distance learning during the COVID-19 situation. The respondents mention the lack of prior experience with online teaching before the pandemic. They state that their digital skills were below average before the pandemic and having to quite suddenly practice online teaching during the pandemic helped them improve. They also acknowledge that their knowledge of teacher preparation, their adaptation of teaching methods, familiarity and proficiency with different teaching platforms, and their use of instructional tools were mostly self-acquired and supported by colleagues in this context. Formal training in digital competence was limited.

Most of the comments express a positive approach to online teaching practices in Albanian higher education. Acknowledging the reality of extraordinary conditions and the immediate shift to online teaching due to COVID-19, the respondents presented a positive perspective, highlighting that this acquired experience changed their perception of traditional teaching, building a new culture in this context.

The mastery of digital competence by teachers in the areas of professional engagement, digital resources, teaching and learning based on the survey appears to be at a good and satisfactory level. However, in the field of digital resources, teachers acknowledge the need for improvement in their knowledge.

The majority of teachers in both universities claim to have an elementary level of digital competence.

Student Survey

The instrument for assessing the quality of distance learning is organized into three sections:

Section I—demographic data, including questions concerning age, gender, Bachelor/Master's level, universities.

Section II—students' experience of distance learning: This section consists of four closed-ended questions. These questions are designed to highlight students' experience during distance learning.

Section III—self-perception of students regarding digital competencies such as information and data reading, communication and collaboration, digital content creation, and security.

Data on the Findings From the Students' Survey

Section I. The study sample consisted of 280 students from both faculties in Bachelor and Professional Master's programs in the academic year 2020/2021.

University of Tirana:

- 100 students from the Bachelor's program, first and third year; 47 first year, 53 second year; 65 female, 35 male.
- 80 students from the Professional Master's program, first and second year; 42 first year, 38 second year; 54 female, 26 male.

University of Elbasan:

- 60 students from the Bachelor's program, first and third year; 28 first year; 32 third year; 38 female, 22 male.
- 40 students from the Professional Master's program, second year; 32 female, eight male.
- The average age ranged from 19 to 23 years.

Section II.

1. Which technological device did you use during online learning? (No multiple answers)

45% of students stated that they used smartphones to access online learning, 22% used computers, 13% used tablets, and 14% used laptops.

2. Which platform did you use for online learning during the COVID-19 situation: Zoom, Microsoft Teams, Google Classroom, Email /WhatsApp? (No multiple answers)

75% of students stated that they used the Microsoft Teams platform provided by the University for Online learning, 13% used Google Classroom, and 12% used Zoom.

3. Which methods were most commonly used during online teaching? (No multiple answers)

Online learning introduced new forms of online teaching such as live video conferences, followed by other methods such as reading/following literature independently. Methods such as case studies and video/PowerPoint presentations by the teacher were used less frequently. 60% of students in both universities declare that the most commonly used method was live video conferences. 25% state that the method of reading recommended literature independently was used, 8% state that case studies were used, and 7% mentioned video/PowerPoint presentations.

Table 10

For Teaching Methods Most Commonly Used During Online Teaching

No.	Method	Number of students UT UE	No. %
1	Live via video conferencing	17 19	36 60%
2	Independent reading/following of literature	8 7	15 25%
3	Case studies	3 2	5 8%
4	Video/PowerPoint presentation by the lecturer	2 2	4 7%
	In total	30 30	60 100%

4. How relevant were the new knowledge, reflection, critical thinking, creativity, and interaction with the teacher in online learning?

Regarding the effectiveness of knowledge transmission, reflection, critical thinking, creativity, and interaction with the teacher, students stated that 44% of them considered this practice to be moderately relevant, around 25% slightly relevant, 10% not relevant at all, and 14% very relevant.

5. How would you assess your IT knowledge before the COVID-19 situation?

In order for online learning to be effective, students need not only the necessary computer skills but also knowledge concerning different platforms for teaching and so on. In the questionnaire, students were asked about their knowledge of technology before the COVID situation. Approximately 2.8% of students declared that they had no skills at all, and only 6.8% declared having "some" knowledge. 43% declared having "good" knowledge, and 28% declared having "very good" knowledge of technology.

6. How much has the experience during the pandemic influenced the growth of your knowledge in relation to online learning?

Students perceive the experience during the pandemic as fruitful in terms of improving their technological knowledge. Around 38% of students declared that the experience of online learning during the COVID-19 situation had an average influence, 14% stated it had a slight influence, 9% stated it had no influence at all, and the remaining 39% stated it had a significant influence on improving their knowledge during the pandemic.

Section III.

1. Competence: Information and data reading:

In this first part of the section, students provided information concerning their self-perception regarding the use of ICT to search, find, select, organize, evaluate, process, and communicate information. 40% of students in both universities perceive themselves as good at browsing, searching, and filtering data, information, and digital content. Students from the University of Tirana have relatively higher average indicators than students from the University of Elbasan.

Table 11

Students' Self-perception of Digital Competence in Reading Information and Data

No.	Competence: Information and data reading		No. UT UE	No. total	In %
1	Very poor	32	25	57	20.4%
2	Poor	48	23	71	25.4%
3	Good	72	42	114	40.7%
4	Very good	28	10	38	13.6%
In total		180	100	280	100%

2. Competence: Communication and cooperation:

This section of the questionnaire focused on: communication and interaction through digital devices (SMS, email, cloud, QQ, WeChat, video conferencing); participation in social networks, online platforms where knowledge and information are shared; collaboration through the Internet with other students; the use of technology and digital media for group work.

Students from both universities are proficient in using digital devices and applications to communicate with others. 49.6% of the students chose well when asked about their participation in social networks and platforms, etc. However, these indicators remain unclear regarding collaboration with others through the Internet for group work and processing their activities and projects. Overall data for both universities in this competency are presented in Table 12.

Table 12

Students' Self-perception of Digital Communication and Collaboration Competence

No.	Competence: Communication and cooperation	No. UT	No. UE	No. total	In %
1	Very poor	15	21	36	12.9%
2	Poor	36	18	54	19.3%
3	Good	98	41	139	49.6%
4	Very good	31	20	51	18.2%
In total		180	100	280	100%

3. Competence: Creation of digital content:

Table 13 shows data related to digital content creation, such as: the use of various tools and software to create multimedia content; the use of different methods to present ideas in a creative manner; modifying and improving existing resources to create new content and knowledge.

It can be observed that only 37.8% of students in both universities perceive themselves as proficient in using different tools and software to create multimedia content (video, multimedia presentation etc.) in various formats. 22.1% claim to have limited knowledge, while 28% possess sufficient knowledge for digital content creation. Similarly, the percentage of students who have a very good competence is low, at 12.1%.

Table 13

Students' Self-perception of the Competence to Create Digital Content

No.	Competence: Creation of digital content	No. UT	No. UE	No. total	In %
1	Very poor	36	26	62	22.1%
2	Poor	51	29	80	28.6%
3	Good	69	37	106	37.9%
4	Very good	24	11	35	12.5%
In total		180	100	280	100%

4. Competence: Security:

The competence of security has low indicators almost at a uniform level for the categories of "poor", "sufficient" and "good". However, the indicators for the "good" category are higher compared to the others. Students mainly claim to be good at understanding the risks associated with using tools and devices on the Internet (63.3%) and being able to protect their devices and content (61.1%). Similarly, for the protection of their personal

data and privacy, the majority of students emphasized that they retained a good level. The indicators for both universities in the categories of "poor", "sufficient", "good", and "very good" can be found in Table 14.

Table 14

Students' Self-perception of the Security Competency

No.	Competence: Security		No. UT EU	No. total	In %
1	Very poor	46	32	78	27.9%
2	Poor	58	17	75	26.8%
3	Good	41	39	80	28.6%
4	Very good	35	12	47	16.8%
In total		180	100	280	100%

5. Competency: Problem solving:

The data related to students' perception of problem-solving competence primarily consist of four components: problem solving with devices, identifying possible technical issues, identifying technical needs and responses, and the creative use of digital technologies. The indicators for the overall competence from both universities in the categories of "poor", "sufficient", "good", and "very good" are presented in the Table 15.

Table 15

Students' Self-perception of Digital Competence in Problem Solving

No.	Competency: Problem solving		No. UT EU	No. total	In %
1	Very poor	48	25	73	26.0%
2	Poor	54	27	81	28.9%
3	Good	58	31	90	32.8%
4	Very good	20	17	37	13.2%
In total		180	100	280	100%

Discussion

From the students' responses, it is evident that: the digital knowledge that students possessed before the pandemic corresponds to the indicators of sufficient and good.

Confronting online teaching as a new practice in the Albanian educational experience should have posed a challenge to positively influence the improvement of students' digital skills. However, it seems that the methods employed have not created such opportunities.

There could be several reasons for this like: a lack of training opportunities for educators and students; the use of simple and limited tools in online teaching may not have provided a richer and more challenging experience for students; the lack of technological infrastructure and access to necessary devices may have hindered the development of digital skills.

Meanwhile, self-perception of digital competence classified into several areas such as information and reading; communication and collaboration; digital content creation; security; problem solving, mainly comes at a level of good and sufficient according to the students' self-assessment after the pandemic.

However, the indicators regarding the levels of "poor" and "very good" are generally lower and would not necessarily help students become competitive for the jobs market. Albanian students have, thus, quite a lot of work to do in this regard.

Conclusion

This article analyzed the higher education context in Albania, with a primary focus on the evolution of a novel teaching culture based on the lessons learned from online learning during the COVID-19 pandemic. In pursuit of this objective, a survey was conducted at the University of Tirana and the University of Elbasan in Albania.

The insights gathered from the educators' survey offer data into their teaching experiences amidst the COVID-19 crisis. Participants indicate a lack of prior exposure to online learning before to the pandemic. They claim that their pre-pandemic digital skills were subpar, but the experience gained during this period has contributed to their improvement. They also acknowledge having received minimal supportive training, relying mainly on self-directed learning to enhance their technology-based teaching skills.

Despite the challenges faced, educators are embracing the prospects of cultivating a new teaching ethos within this context. The majority of educators in both institutions claim possessing a good level of digitally oriented research competence. Their mastery of digital skills, aligned with specific fields according to the DigCompEdu framework, is notably rated as either good or satisfactory. However, there is definite room for growth in terms of digital resources.

Among students, digital skills in the learning process are deficient. Their engagement in online education has indeed aided in refining these skills, but they remain insufficient. Surveys underline that despite the incorporation of technology into online instruction, its impact on enhancing students' digital capabilities remains confined. This is primarily attributed to the predominant utilization of basic tools.

The level of technological acumen that students possessed prior to the pandemic generally aligns with the criteria of satisfactory and good. Regarding their self-perception of digital competence across different domains such as information and reading, communication and collaboration, digital content creation, security, and problem solving, as assessed through the questionnaire, respondents primarily rate themselves at the levels of good and satisfactory.

The pandemic transformed teaching and learning culture at Albanian universities by promoting collaboration, flexibility, and student-centered learning. It encouraged lecturers to collaborate with students, emphasizing the use of collaborative tools for group projects.

It is evident that educators need to enhance their digital competencies through training and institutional support to elevate teaching standards, moving towards online teaching and learning and foster a necessary new culture within the contemporary Albanian society. Simultaneously, students must strive to elevate their digital prowess to meet the demands of the evolving job market and broader contemporary advancements.

Regardless of the challenges, the identified needs for improving digital knowledge, both for academic staff and students, signify a shift towards a new culture of higher education in Albania.

Recommendations

IAL (Higher Education Institutions) should initiate projects and training initiatives designed to enhance the digital competencies of academic staff, focusing on effective technology-based teaching and learning methods. The objective should be to elevate student digital literacy.

The approach to implementing digital and online teaching should change primarily within the Albanian legal framework, which should enable IAL's development in this direction through various Bachelor and Master's programs.

Academic staff should be supported technically and through various training programs in the use of technology in teaching, the production of digital teaching materials, and "modern" academic practices, aiming to improve the teaching process efficiently in terms of subject content at a scientific level.

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