

AFTER THE PANDEMIC, DO HEI PROFESSORS STILL FEEL THE NEED TO IMPROVE THEIR ONLINE TEACHING SKILLS?

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Abstract

During the pandemic, worldwide Higher Education Institutions forced their teachers to abandon the F2F lesson to adopt an online approach.

Most institutions provided special courses to support their teachers during this radical change that, especially in no-informatic departments, meant to shift dramatically from direct interaction in classes to one-to-computer screen lessons.

Researches after the pandemic show positive feedback from the professors and students: in HEI, the shift was not dramatic as it was for primary or secondary schools. Now that the emergency period is over, do professors still feel the need to be trained to provide online lessons in an effective way? To answer this question, the Erasmus+ SOULSS project partnership distributed the academic year 2022-23 a survey to explore the attitude and the self-evaluation of professors from universities in several European countries like Italy, Greece, Lithuania, Spain, and Portugal. The total number of answers and the span in geographical terms allow us to give some conclusions about the past-pandemic attitude among professors about training on digital learning.

Keywords: COVID-19 Pandemic, Higher Education, E-Learning.

1 INTRODUCTION

In March 2020, the world was forever changed by the sudden emergence of a novel virus that rapidly spread across the globe. The speed and scale of its transmission left many stunned and in disbelief. The virus, known as SARS-CoV-2, seemed to defy all human efforts to bring it under control, leaving many of us feeling helpless and vulnerable. and upended our daily lives, changing how we work, learn, and socialize. Travel restrictions, lockdowns, and even social distancing measures became the new normal, and people worldwide struggled to adjust to this new way of living.

It was on education that such disruptive change had a particularly profound impact. With the sudden shift to remote work and online learning, digital skills have become more crucial than ever before. Adopting digital technologies highlighted the importance of digital competence in all education systems with somewhat different effects (Al Lily et al., 2020). While at the elementary and secondary school levels, the shift to remote learning was particularly challenging, as many students lacked access to the necessary technology and resources for online learning, which led to concerns about equity and access, with many educators and families calling for increased support, at the college and university level, the shift to remote learning was generally better received, as many institutions were better equipped to handle the technical and logistical challenges of online learning.

However, there were many concerns about the impact of remote learning on student engagement and motivation in these institutions, as well as the quality of education delivered in the virtual environment. The sudden closure of campuses and the shift to remote learning left many students and faculty members reeling, struggling to adapt to this new way of teaching and learning. Institutions were forced to deploy online learning platforms and tools rapidly, and faculty members had to develop new digital competencies to deliver their courses effectively and quickly. The transition to online learning was, thus, particularly challenging for courses that traditionally relied on in-person instruction, such as laboratory experiments, art classes, and performing arts courses. Plus, the loss of social interaction and on-campus experiences left many students feeling disconnected and isolated, with social and psychological

dysfunctions that we can still feel today. But, most important, there was a lack of structure in the way these activities were performed, and what was supposed to be a first step to eLearning became nothing more than what would be called “emergency remote learning” (Hodges, C et al. 2020) as a temporary response to a crisis, in opposition to online learning, which is a more deliberate and planned approach.

Under these circumstances, teachers had different reactions. During the initial stages of the pandemic, many HEI teachers experienced a range of emotions about the sudden shift to remote learning. Some were excited about the potential for new pedagogical approaches and the opportunity to experiment with new technologies. Others were skeptical about the effectiveness of online learning and concerned about how they would connect with their students in a virtual environment and tried to revert the situation.

This sudden shift to remote learning has challenged the traditional models of teaching and learning and highlighted the need for digital competencies and flexibility in education. Many teachers simply transferred old models to new tools, lecturing in Zoom, Classroom, or Teams as if in a physical classroom. For many, the transition was challenging, requiring them to adapt their teaching methods and reevaluate their assumptions about what it means to be an effective teacher.

Some needed help with the technical aspects of remote teaching, such as navigating online learning platforms and troubleshooting technical issues. Others were concerned about the impact of remote learning on student engagement and motivation and their mental health. And despite these challenges, many HEI teachers did their best, embracing the opportunities presented by remote learning and finding new and innovative ways to engage their students. They worked tirelessly to create a sense of community in the virtual classroom, using technologies such as videoconferencing and discussion forums to facilitate dialogue and collaboration. Many learned to adapt their teaching methods to the online environment, leveraging technology to create more interactive and engaging learning experiences for their students. They now recognize that the level of interactivity and engagement may depend on the quality of the online tools and the instructor's ability to create an engaging virtual environment that must be designed to be interactive and engaging, with multimedia elements and interactive activities.

The challenge of learning these skills can be significant for educators who may have limited experience with multimedia technologies or lack the technical expertise to use them effectively, and the process may involve a significant investment of time and resources, including training programs, software, and hardware purchases, and the development of new lesson plans. Many authors (Bransford, Brown, and Cocking 2000) also emphasized the importance of student-centered, active learning in education. They argued that learners need to be engaged in meaningful, authentic activities that require them to construct their knowledge and suggested that this can be achieved through multimedia and technology, as well as through collaborative, problem-based learning approaches.

Furthermore, as we have already mentioned, this use of multimedia elements and interactive activities required a pedagogical shift that moved away from traditional lecture-based instruction towards more student-centered, active learning approaches. This required educators to not only master the technical aspects of multimedia creation but also to develop new teaching strategies that promote engagement and critical thinking among students. (Selwyn, N. 2020)

The COVID-19 pandemic has highlighted the adoption of new technologies and teaching methods that proved challenging for educators, and ongoing professional development and training will continue to be crucial for maintaining effective educational practices.

The need for ongoing education remains relevant in specific sectors, specifically in artificial intelligence (AI). Given the swift pace of technological disruption, instructors must remain current with the latest advancements and be adequately equipped with the necessary skills and knowledge to incorporate these resources into their online curriculums effectively. Moreover, instructors must ensure their students are well-prepared to face the challenges of an AI-based world. This requires the implementation of a comprehensive training regimen, addressing not only the technical components of AI but also its ethical and social implications.

And while some educators may have adapted successfully to new technologies during the pandemic, the pace of technological disruption is such that ongoing training and professional development is necessary. This will require a commitment to lifelong learning and a recognition of the importance of keeping up with emerging technologies and best practices the eventually inherited from confinement time. Ultimately, this investment in teacher training and development will not only benefit educators and students but also contribute to the wider societal goals of preparing the workforce for the demands of the future economy.

The research question here is if professors, after the Covid-19 emergency, feel the need to access to new training courses to improve their digital competences and, specifically, to learn new approaches as the Universal Design of Learning (UDL).

2 METHODOLOGY

To provide an overview of the way academic professors perceived their digital competences and their need of new training, a survey produced within the project Erasmus+ SOULSS was distributed in the Academic Year 2022-23 among professors belonging to several European universities. The total number of answers corresponds to 212. The survey was developed through Google Modules platform (Google Inc., Mountain View, USA), and the analysis was performed through the Microsoft Excel software (Microsoft, Redmond, USA).

The proposed survey included several questions related to the teaching attitude and teaching profile of the professors. In particular, the survey was proposed to collect data related to the self-perception about digital competences and adaptation to the online teaching in European Higher Education Institutions.

The followings correspond to the questions included in the survey mentioned above coupled with possible answers:

Q.) *Are you a professor (or other academic professional) or a student? (Please answer considering your main status in the last 3 years)?*

A.) *Open answer.*

Q.) *In which country do you work?*

A.) *Open answer.*

Q.) *What is the name of your university?*

A.) *Open answer*

Q.) *In which faculty do you work?*

A.) *Open answer*

Q.) *What age group do you belong to?*

A.) *25-35 / 36-45 / 46-55 / 56+*

Q.) *From 1 to 5, how much do you agree with this sentence: "In my opinion, the online lessons during the COVID-19 emergency represented a catastrophe, and the online courses were a curse"?*

A.) *Slider from 1 to 5.*

Q.) *Did you attend any special teaching training courses during the COVID-19 emergency (A.Y. 2019-2020)?*

A.) *Yes. / No.*

Q.) *Since the end of the COVID-19 emergency, have you taken training courses to improve your digital skills?*

A.) *Yes, in the last 3 months. / Yes, more than 3 months ago. / No.*

Q.) *From 1 to 5, how much do you agree with the sentence "My digital skills for teaching are more than enough concerning my academic duties"?*

A.) *Slider from 1 to 5.*

Q.) *What is your usual type of teaching?*

A.) *Face-to-face (or F2F teaching) - synchronous. / Remote synchronous. / Asynchronous. / Hybrid.*

Q.) *In case your teaching is mainly synchronous face-to-face, do you combine (or do you want to do) F2F teaching with digital resources after the lockdown?*

A.) *Yes. / No. / Sometimes. / My teaching is not based on face-to-face lessons.*

Q.) *From your perception, do you think students need emotional support during online classes?*

A.) *Yes. / No. / Some of them.*

Q.) *Do you know what Universal Design for Learning (UDL) is?*

A.) Yes. / No. / Not sure.

Q.) From 1 to 5, how much do you agree with this sentence? "In my opinion, the Covid-19 emergency represented an important opportunity to improve my teaching methodologies."

A.) Slider from 1 to 5.

The survey was distributed over different European universities to collect a heterogeneous overview of the European HEI education adaptation toward online teaching due to the health emergency, which forced a relevant and crucial modification of the teaching style and courses provisions, as well professors' self-perception about their own digital competencies.

3 RESULTS

In this section, we will demonstrate the primary results of our survey.

Students and teaching staff participated in the survey (N=212). In our case, as the questionnaire was focused on teaching staff, we enabled only teaching staff to answer the questions (N=198). Most teaching staff are professors (89%), as shown in Figure 1.

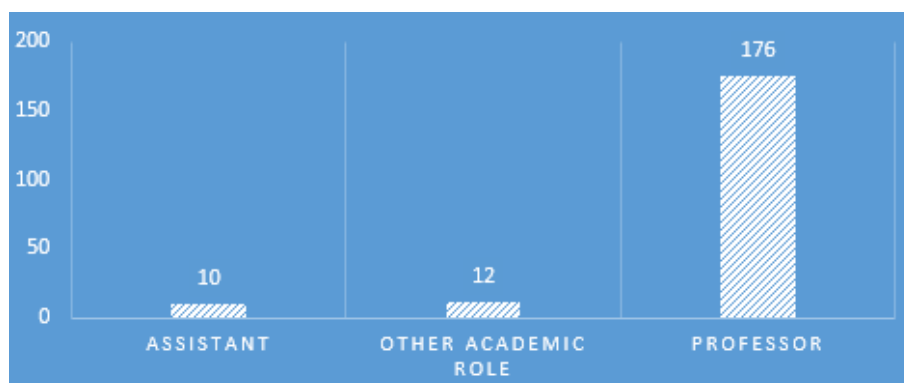


Figure 1: What is your academic role?

Regarding the faculty that the participants are working with, we had different answers, as it is shown below:

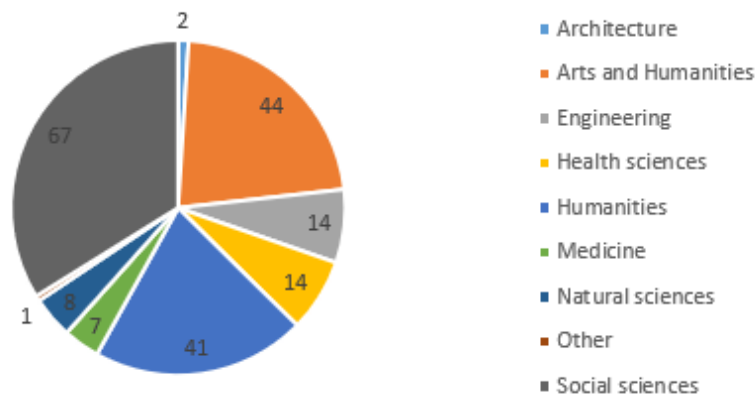


Figure 2: In which faculty do you work?

As we can see, Social, Arts, and Humanities have the most participants. Regarding participants' opinions about online lessons during the pandemic, we can see that they did not find it a "curse" as we had a mean value on the 1-5 Likert scale of 2.35 ± 1.21 . The whole picture of these results can also be seen in the following figure.

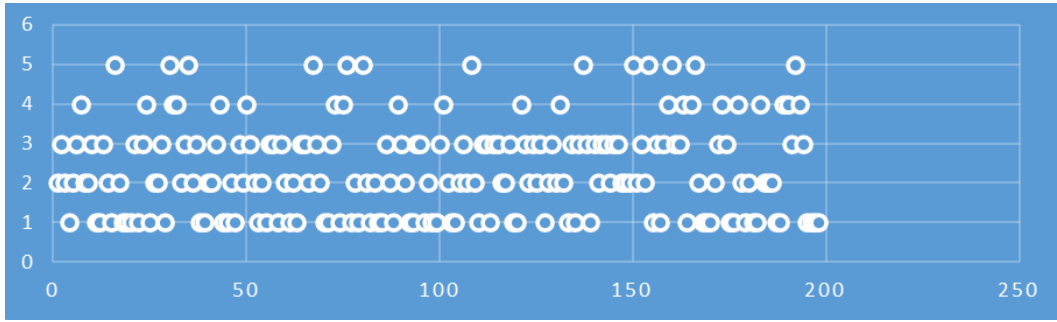


Figure 3: From 1 to 5, how much do you agree with this sentence: "In my opinion, the online lessons during the Corona-19 emergency represented a catastrophe, and the online courses were a curse"?

Regarding teachers' digital skills, we had two related questions. The first one examined whether they had attended a course dedicated to digital skills during the pandemic. We found that 44.5% of the participants had attended a course for digital skills during the pandemic. This trend was also present after the pandemic, as 57.6% of the participants attended courses dedicated to digital skills. They also seem to be reasonably confident that they have all the necessary digital skills to withstand online education's difficulties, as in this question, we have a mean score of 3.88 ± 0.985 which is also shown in the following figure.

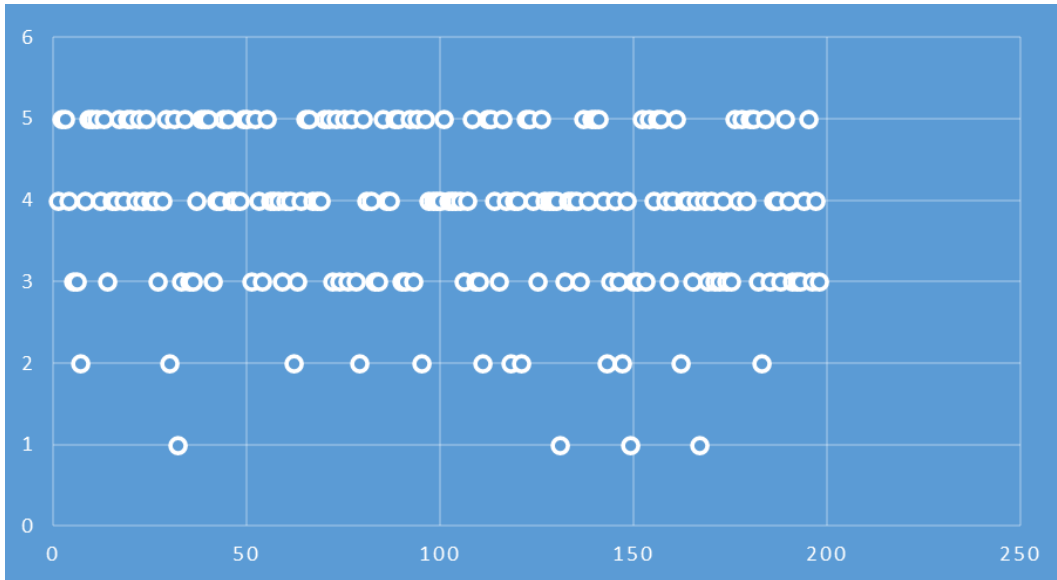


Figure 4: From 1 to 5, how much do you agree with the sentence "my digital skills for teaching are more than enough concerning my academic duties"?

Another interesting finding of the survey is that the majority of teachers seem to be optimistic about combining face-to-face teaching with digital resources after the lockdown, as it is shown in the following figure:

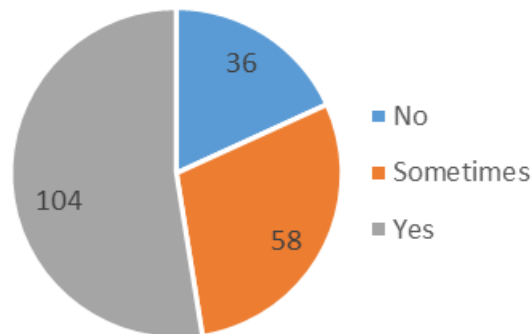


Figure 5: In case your teaching is mainly synchronous face-to-face, do you combine (or do you want to do) F2F teaching with digital resources after the lockdown?

Regarding students' emotional support, participants seem to find the need for this kind of support as it is shown below:

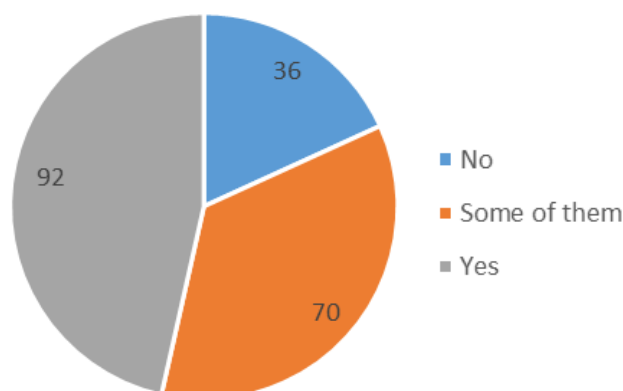


Figure 6: From your perception, do you think students need emotional support during online classes?

Another interesting finding is that most participants (54,4%) do not know about UDL. At the same time, they seem to find the pandemic as a way to improve their teaching methodologies, as the score in this question was 3.495 ± 1.22 .

4 CONCLUSIONS

The results show an ambiguous situation about teachers' self-perception on their digital competencies and, for extension, toward new training courses on this theme. Clearly professors who feel they have already enough expertise will not be keen to attend specific training courses as well as professor who refuse online teaching at all after a negative experience during the Covid-19 emergency. Answering professors declare mostly to be satisfied with their actual digital competencies that have been reinforced by specific training course during the pandemic. At the same time, most of them do not know what UDL is, an important element to be considered because of the importance of this approach in inclusive digital learning. This latter aspect is implicitly considered important by respondents who mostly agree with the idea to emotionally support students during online lessons.

These considerations allow us to conclude that professors are not so interested in new courses that simply aim to improve their digital competences in general terms but they can be involved in specific training activities focusing on inclusiveness in the digital sphere. That is exactly what the Erasmus+ project SOULSS aims for.

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