Aspects of the Well-being of University Instructors Related to Online Education During and After the Pandemic – Case Study of a Hungarian University

András Buda[1], Emese Berei[2]

Abstract

In the past decade, quite a few articles have been published about the advantages and disadvantages of working from home online, and by studying the experiences that they present, it would be possible to much more thoroughly plan the rather complex, multi-faceted process of digital transition. However, the coronavirus epidemic that broke out in early 2020 did not allow for thoughtful preparation. The new work schedule resulted in profound changes to the work of university lecturers, thus, it obviously also had a significant impact on their well-being. In this study, we examine the state of the well-being of the instructors at one of the biggest universities in Hungary, the University of Debrecen. The period in question is at the introduction of emergency remote teaching and at the end of the pandemic period. Using quantitative and qualitative methods, we collected data and information at different times. Based on this, we revealed what resources the instructors relied on, how they were able to meet the challenges of education online.

Keywords: teachers' well-being; pandemic; higher education

Introduction

Before 2020, there were only a few examples of educational programs based entirely on e-learning in public education institutions and were rare in higher education. Though some kind of framework was already available in many institutions, they usually served as a "warehouse of educational content", where the instructors only ensured the availability of traditional materials (notes, slides, class aids) for students. Consequently, in the spring of 2020, the transformation to emergency remote teaching had to be made overnight, with rather little experience (Bozkurt & Sharma, 2020; Hodges et al., 2020).

As a result of the problems generated by the closing of institutions, the social, physical, and psychological challenges, the life and work of university instructors was significantly deformed (Godber & Atkins, 2021); the state of balance that was characteristic of the situation of well-being could not be established (Dodge et al., 2012). Therefore, in our research, we investigated how the forced introduction of emergency remote teaching influenced the well-being of the instructors of a large Hungarian university. Using questionnaires and focus groups, we identified how their work had changed due to the pandemic. Among the areas in question, we examined what resources they could rely on and, based on these, how they answered the most serious of challenges and also what coping strategies they used to restore and establish a balanced state of well-being.

The Impact of Emergency Remote Teaching on Well-being

Dodge and his colleagues defined well-being "as the balance point between an individual's resource pool and the challenges faced." (Dodge et al. 2012, p. 230). Based on this, the stable state of well-being is when the

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[1] Faculty of Humanities, Institute of Educational Studies and Cultural Management, University of Debrecen, Hungary; buda.andras@arts.unideb.hu
[2] Emanuel University of Oradea, Oradea, Romania; emese.berei@emanuel.ro

individual has the psychological, social, and physical resources that they need in order to be able to meet a given challenge, be it psychological, social, or physical. It is clear from what has been described above that the emergency remote teaching that was introduced because of COVID-19 has tipped the balance of the see-saw of challenges and resources (Dodge et al., 2012) to a significant degree; but the new social, psychical and mental challenges were what made the situation really difficult.

The school atmosphere, the encounters and conversations that take place in the shared physical space are extremely important. They improve cooperation, they develop social relations, they provide shared experiences, and the participants have a stimulating effect on each other, inducing thoughts and generating emotions in one another. This is why one of the gravest issues with emergency online education was its impersonal nature, the loss of direct interaction between instructors and students (Espino-Díaz et al., 2020; Ferri et al., 2020). During the lockdowns, teachers and students did not have the opportunity to meet in person, engage in conversations, or share experiences, encounters that no digital solution can completely replace. Asynchronous education presents significant limitations from the start, as it basically restricts communication to the written form. At the same time, during the pandemic, neither were synchronous classes a viable solution to the impersonal nature of online education. Despite the audio and video connection, the depth of the meetings realized through these platforms could not even approximate the feeling of personal meetings, especially when it came to groups. During in-person teaching, body language, gesticulation, proxemics, the volume, or pace of speech are all very important; in some respect, they can even be considered vital teaching aids (resources) for the teacher. But of these elements, maybe only the effect of sound can work on online platforms, and only under suitable technical conditions (Bao, 2020). This way the presence, the charisma of the teacher remains almost completely ineffective, which is also a problem because university instructors do not just teach, nor do they merely support academic development, but they are often at the forefront of supporting the mental health of students as well (Bryer & Signorini, 2011; Dinu et al., 2021). And since the well-being of the teacher is closely related to the performance and happiness of students at school (Lyubomirsky et al., 2005; Jennings & Greenberg, 2009; Brouskeli et al., 2018), Roffey (2012) argues that bettering the sense of instructor well-being will truly effectively promote the well-being and better performance of students.

Nonetheless, teaching has long been ranked as one of the most stressful professions (Travers & Cooper, 1993; Johnson et al., 2005). In addition, there is no change in the stress factors, the most serious problems have included and still include high workload, lack of balance between work and private life, limited autonomy, and excessive administrative obligations (Fetherston et al., 2021; Mercer & Gregersen, 2020). Kidger et al. (2016) called attention to the fact that the well-being of those working in the field of education is still significantly lower than that of the general population. What is more, Savill-Smith (2019) pointed out that the stress level of teachers is constantly rising, in 2019, already 72% of the respondents indicated that they had experienced some kind of mental health problem in the past school year.

The pandemic situation that erupted at the beginning of 2020 further worsened the situation. The social and physical isolation (e.g., school closures, curfews, the restriction of cultural and leisure activities, etc.), as well as the sense of helplessness and defenselessness in the face of the virus, an intangible source of danger, in addition to the concern about for one's own safety, and the life and health of our loved ones, have all increased the general level of anxiety. The internal burden led to constant tension, which in itself resulted in significant fatigue and increased mental strain, especially during the first wave of the pandemic.

On top of this, the teaching-learning process was not the only thing that was transferred into the online space: recreation and social events were also moved here. The change completely upset the previous way of life, the usual daily routine being further agitated by the forced confinement of families at home. The monotony and dullness caused by the blurring of processes have reduced both received and given reactions, leading to a gradual increase in frustration. Some students found the new form of education so burdensome, their stress level increased to such an extent that they became rude online as well as, especially with instructors (Oyedotun, 2020). This, as a result, also played a role in increased stress and anxiety levels in teachers worldwide (Besser et al., 2020; Haider and Al-Salman, 2020; Li et al., 2020). Moreover, the altered working conditions, being cooped up, not only had a negative effect on mental health, but the physical condition of instructors also deteriorated, especially among women and in the younger age group (Lizana et al., 2021).

However, quite a few instructors reported positive developments (Turner & Theilking, 2019; Hascher & Waber, 2021). There were those who stated that working from home during the pandemic provided more flexibility and more time to focus on work (Esteves et al., 2020), and due to the online connection, there were more opportunities to collaborate with colleagues on a common goal (Dinu et al. al., 2021), respectively, there were those who emphasized less commuting and the development of digital skills (Karatuna et al., 2022).

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The diverse and sometimes contradictory results come from the fact that the experience is greatly influenced by the varied educational systems in each country, the guidelines of educational organization and management, social customs, cultural traditions, and the availability of digital resources necessary for online education. This all predicts that the characteristics of the well-being of the instructors and how they changed due to the pandemic can also be expected to show differences from one institution to the next. It is definitely worth getting to know these differences, since the use of these experiences helps to more adequately plan, to shape the education of the future.

Materials and Methods

The research was carried out at the University of Debrecen, one of Hungary's largest universities, comprising thirteen faculties. The data collection was organized during the most critical points of the pandemic period. Using a combination of qualitative and quantitative measurements, we attempted to capture emergency remote teaching's impact on instructors. At the end of the spring semester of 2020 (June 2020) and at the end of the fall semester of 2020 (January 2021), we compiled an anonymous online survey and examined the experiences of the first two stages of distance education. First of all, we wanted to explore what resources educators relied on to respond to the new challenges. What tools did they have at their disposal during the transition to emergency remote teaching? What was their digital preparedness at the outbreak of the pandemic, and how did this level of preparedness change in the time between the two surveys? The questionnaire basically contained closed questions. Among them were 10-point Likert-scale questions, but we also used questions with nominal or ordinal scales. After data cleaning, we evaluated responses from 315 questionnaires in the spring and 285 in the fall.

Among those who filled out the questionnaire in the spring, 150 were women and 165 men, while in the fall, 142 women and 143 men answered the questions. As the faculty of the University of Debrecen consists of 917 women and 1112 men, the gender distribution of the research closely follows the gender distribution of the university instructors. With regards to their age, the vast majority of instructors belong to the 35-64 age group (Table 1).

Table 1. Instructor age groups (number of people)

Age group	Number of respondents in the spring	Number of respondents in the fall
under 35	49	42
35-44	119	97
45-54	81	82
55-64	55	50
over 64	11	14

In the third stage of data collection, the spring of 2022, with the help of focus group interviews conducted in various institutions of higher education, we attempted to reveal the characteristics of the physical, mental, and emotional well-being of the instructors, as well as their working conditions, with regard to how the emergency remote teaching impacted them. A total of eleven people were interviewed at the University of Debrecen, in two focus groups. We transcribed the text of the interviews, subjected it to content analysis, and created thematic nodes.

Results

The questionnaires revealed that relatively few of the university's instructors had to deal with obstacles with regards to infrastructural resources during the first and second waves of distance learning. The university was able to provide the necessary technology for those who did not have their own suitable device, or had to share the existing devices with family members. The help mainly meant lending laptops, and, in both surveys, half of the respondents stated that they (also) used a university laptop for teaching. In spite of this, the two educational periods are also similar in that both were dominated by the devices owned by the instructors. There is a very significant difference between them however: in the spring, the instructors tended to use several types of technical devices much more often than in the fall. The extent of the shift is indicated by the fact that the proportion of respondents who used only one device for online teaching rose from 19% in the spring to 31% in the fall (Table 2).

Table 2. The type of devices used for online teaching

| Device	The users			
	2020 spring		2020 autumn	
	numbers	rate (%)	numbers	rate (%)
Personal computer	130	41.27	140	49.12
Laptop	303	96.19	275	96.49
Tablet	73	23.17	58	20.35
Mobile telephone	199	63.17	127	44.56

Within the resources – in addition to the devices – we also examined the availability or absence of an Internet connection (Table 3). Based on our results, Internet access was available for everyone who filled out the questionnaire; moreover, the vast majority of instructors also had bandwidth that provided adequate data traffic and speed. Only 14% and respectively 13% of the respondents replied that they had to switch to a package that enabled faster or more data traffic.

Table 3. Internet access (%)

	Had internet with adequate bandwidth	Had internet, but had to switch to larger bandwidth/data package
2020 spring	86	14
2020 fall	87	13

The technical requirements were essentially available for the instructors, but in addition to the infrastructural resources, the emergency remote teaching also requires intellectual resources. This is why we also examined whether our respondents also have the appropriate level of digital competence, in addition to the devices.

We examined preparedness with several questions. First, we asked our respondents to evaluate their own digital preparedness in a complex way. In both surveys, we asked about the level of knowledge in January 2020, and at the time of the survey. The change is visible in the case of both studies (see Figure 1 and 2).

Figure 1. The assessment of the digital preparedness of the teachers during the spring survey (number of people)

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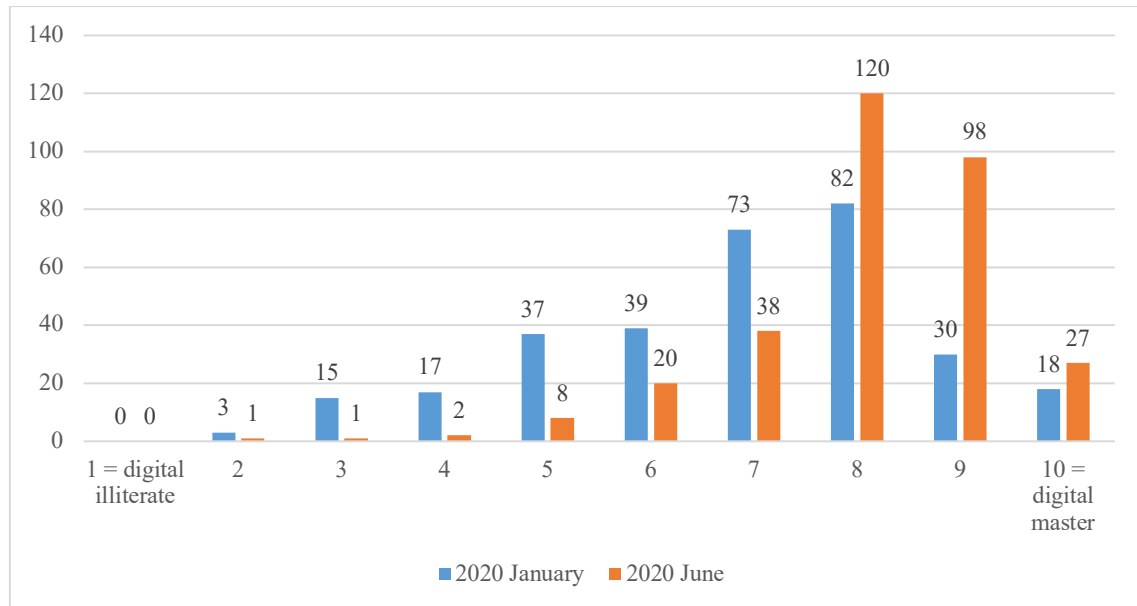
Figure 2. The assessment of the digital preparedness of the teachers during the fall survey (number of people)
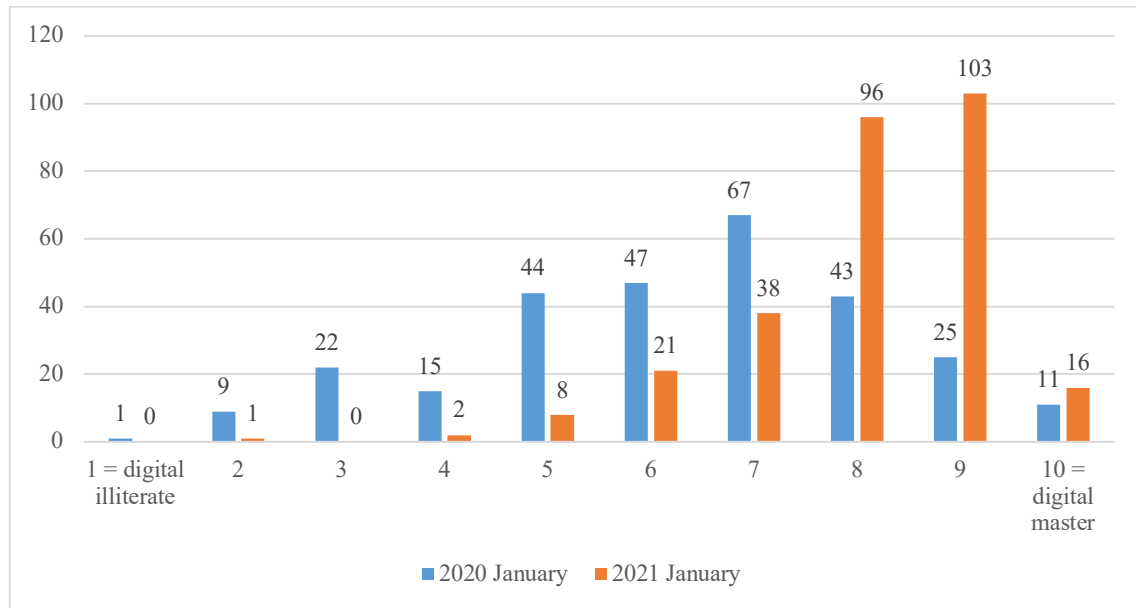
Apparently, significant progress has been made in digital preparedness, but while in the spring, the instructors rated their preparedness before the pandemic to be at an average 6.9 on a scale of ten, at the time of the second examination, they put this value at 6.3. Therefore, after looking back at the initial state after a longer period of time, the instructors judged their own preparedness to be at a lower level. At the same time, in both surveys, the respondents evaluated their current level of preparedness at an average of 8.1. This high value signifies a significant progress in both periods (p=1.9965E-19, and p=4.87E-32), but concurrently, it also reveals that no actual changes took place in the fall in this respect; the progress took place at the time of the school closures during the first wave.

We also examined the change of digital preparedness by age groups:

Table 4: Changes in the average of digital preparedness by age groups (1=digital illiterate … 10=digital master)

| Age group	Spring	Fall	Change
Under 35	7.0	8.1	1.1
35-44	6.1	8.1	2.0
45-54	6.5	8.1	1.6
55-64	6.1	8.1	2.0
Above 64	5.6	8.1	2.5

For the level of competence at the beginning of the pandemic, our respondents in almost all age groups gave themselves an average value somewhat over the mean value of the 10 scale, with those over 64 starting from the lowest level. By the end of the fall semester, however, due to intensive use, organized trainings, and self-improvement, this competence improved very significantly, and indicated an average value of 8.1 in all groups. Thus, due to the lower starting level, those over 64 could report the greatest progress.

During the lockdowns, the instructors had to rely on these physical and mental resources during the teaching. The extent to which our respondents were able to meet this unexpected, complex challenge is well characterized by the evaluation of the successfulness of the instructors in transforming the teaching-learning process to the online space.

Figure 3. To what extent were you able to implement the planned program and curriculum (number of people)
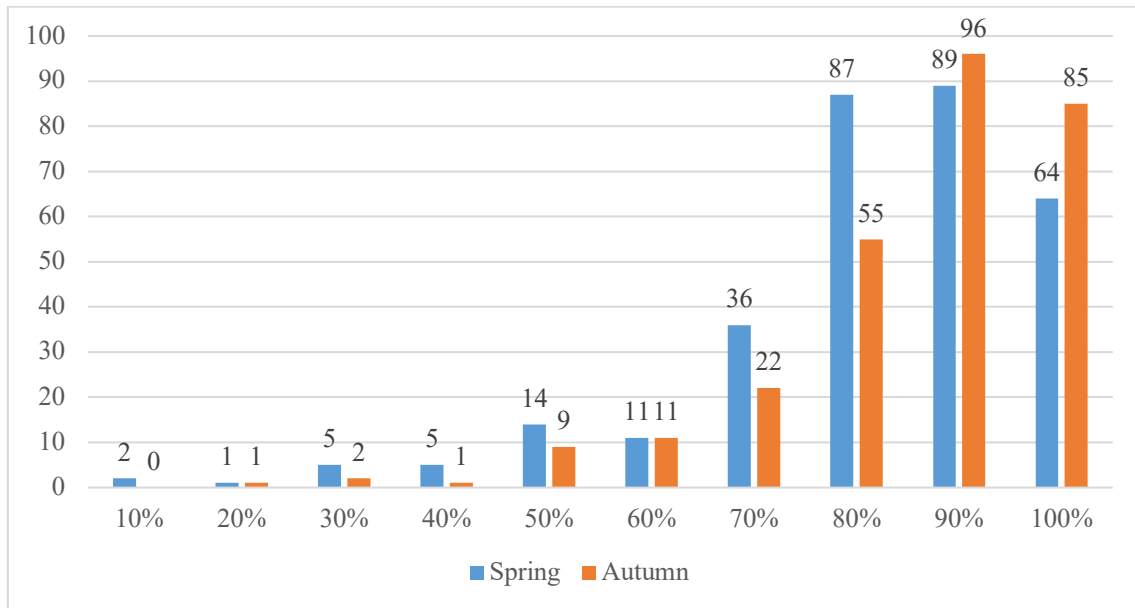
On average, instructors were able to implement 81.6% of their planned educational activities in the spring, and 86.2% in the fall, only a 4.5% increase. This in itself denotes that the experiences of the spring were not applied very successfully. However, it is notable, that in the fall, the number of those who managed to completely (100%) or almost completely (90%) employ the original plan rose significantly, in spite of the fact that while the semester started in person, they later had to switch to emergency remote teaching again after a few weeks. In the spring, less than half of the respondents (48.7%) gave this answer, but in the fall, almost two thirds of them (64.2%) reported such a result.

According to our respondents, the changed working conditions, especially the new form of education, clearly generated additional burden for the instructors, especially during the first wave. In the spring, less than 3% of the instructors stated that their workload had decreased during the first pandemic semester, furthermore, the majority of these respondents experienced only a minor reduction. In contrast, an exceptionally high proportion of the respondents, 85.6%, reported a noticeable increase in their workload (Figure 4). In the fall semester, the feeling of being overburdened decreased drastically, only 67.7% of the instructors signaled this, but even this lower value is rather high.

Figure 4. Changes in teaching load (number of people) (1=it decreased significantly … 10=it increased significantly)
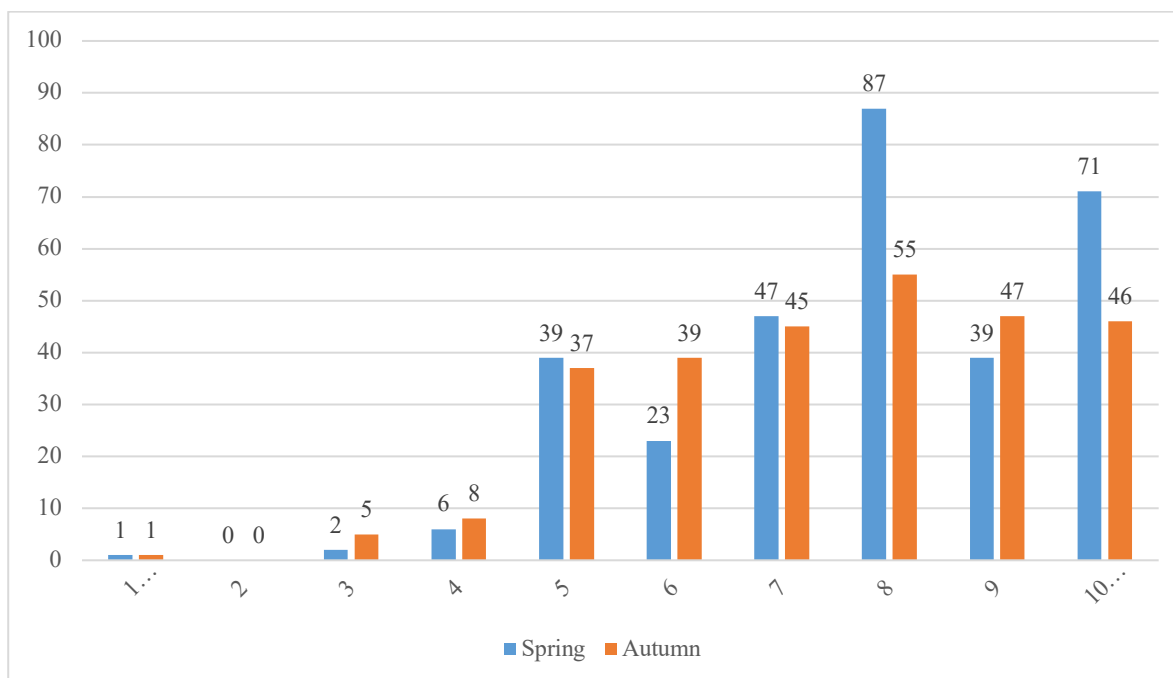
The creation of digital content supporting online teaching and learning, the acquisition of the necessary digital knowledge, the fully digitalizing communication, getting to know the various platforms has required a lot of time, which greatly reduced the time available for other types of professional activities. Most university instructors had to face this problem. 80% of our respondents reported some degree of decline in publication and other professional activities. *"Due to the increased need for time required for teaching, we had to sit too long in front of the computer (with all the physical and mental consequences), and I felt a constant tension due to the fact that academic work and publication, which are otherwise important to me, had to be pushed into the background"* (man teaching at the Faculty of Health).

At the end of the emergency distance learning period of the first wave, relatively few (30 people) felt frustrated, while slightly more than half of the respondents (51.9%) reported exhaustion. A similar proportion of instructors indicated that they have improved a lot (54.8%) and learned a lot (51.9%) while online. The fact that, despite the progress, only a third of the respondents (32.4%) said that they liked the online form of education indicates that this development was a forced change. This is also supported by the fact that when the question was asked, "If you could choose, would you teach in traditional format or distance learning in the next academic year?" only 5.7% of the respondents indicated distance learning. A lot more (34.1%) voted for the traditional, in-person format, primarily because they felt that distance learning was very uncomfortable due to its impersonal nature. In contrast, the majority (60.2%) would have preferred some type of hybrid form of education at the end of the 2020 spring semester. Notwithstanding, the ratio had changed by the end of the fall semester. The number of those who chose distance education rose to 10.2%, and the proportion of those who supported traditional education climbed to 40.7%. Consequently, the proportion of those preferring a hybrid, blended form of education decreased to 49.1%.

The Results of the Interviews

The pandemic constraints started to ease significantly in the spring of 2022, and we were curious to see how the various dimensions of instructor well-being morphed after the end of the crisis. In order to get to know the more personal characteristics, we organized focus group interviews at various universities, and eventually 11 of the instructors of the University of Debrecen participated in these discussions. The interviews explored a wide range of factors influencing the work of the teachers. Within this, they specifically examined the stressors that negatively affected well-being during the pandemic period. We transcribed the text of the interviews, subjected them to content analysis, and created thematic nodes. When presenting these – in order to convey the opinions and feelings that were expressed as graphically as possible – several quotes will be used from the interviews.

During the conversations, it was repeatedly confirmed that during the emergency distance education, one of the biggest problems was the blurring of the division between work and private life. Even before the pandemic, many were not able to draw the boundaries between their private and work spheres, as the work of an educator is different from, for example, assembly line worker, or a store assistant. In the latter cases, for example *"one just closes the shop door, goes home, and from then on, they are less concerned about what is happening."* in the store. However, a university instructor *"doesn't work an 8-hour job, the ideas often come in the evening, on the weekends, I have to sit down, because I have to teach a class the following day, and because I want to rethink, restructure, update it, so it's difficult to let go of work."* The covid pandemic and the resulting transition to online education emphasized this phenomenon even more, because due to the lockdowns, work, private life, even a large part of leisure activity took place in the same physical space. The dividing line between these various activities became completely indistinct. Although by the spring of 2022 people were not required to stay at home, the situation did not improve much. *"I was really hoping that when we return to in-person education, these boundaries would be restored, but unfortunately, my experience is that this is not at all what happened."* Not only did the situation not get better on the individual level, but also *"the institution was also unable to get back on the beaten track after the pandemic situation, and since they saw that we were accessible around the clock and can be disturbed and available to work, because of this… they often cross the line that should exist between employer and employee, i.e., to the detriment of the private sphere."*

Although the teaching work, which has grown more ubiquitous due to the pandemic, has become a significant burden, our interviewees feel that when it comes to advancement, it does not matter whether one is a good instructor or bad. *"I think – and I've been in the field for thirty years – that in reality, at the university it has officially never really mattered how good of an instructor someone was. It obviously mattered in terms of work relationships and recognition, but otherwise, people are evaluated based on scientometrics. So one can get ahead if they have a lot of articles, good articles, and so on."* This is exactly why today research seems to come up as the most important requirement for university instructors, as *"if there is no research, there are going to be no publications in the future."* In addition to the publications related to research, the organization of conferences is also on their to-do list, and, furthermore, instructors from the various faculties also have to fulfill a number of other different requirements, depending on the field of study. In the medical field, for example, one of these tasks is healing; in the field of engineering, maintaining contact with industrial actors is key, and, for instructors from the Faculty of Music, performing and actively playing concerts are on the docket.

Therefore, instructors must meet a complex – ever expanding – system of expectations. This is inherently stressful, and not an easy task at all, but among the interviewees, there was one who said that actually, it is not the fulfillment of these tasks that is difficult, *"but the ratio, the balance, how to find the right proportions between them. And maybe these can present a challenge."* Complexity complicates the situation to a large degree, as *"this formula has multiple dimensions, and we can grab on to any of the threads by itself, it is not certain that it will give us a realistic picture"* of the work of the instructor.

Although during the emergency distance education, the expectations shifted very strongly towards the direction of teaching (some stated that they spent countless on this), they remained present in other fields as well. As a result, many people revealed during the interviews that they were terrible drained due to the efforts to comply, some of them looking forward to the end of the semester so much that they were counting the days that were left. For this reason, it is invaluable to ask what instructors do to maintain their own well-being, physically and mentally.

The majority of our interviewees were aware of the importance of this area, e.g., *"we are under a lot of stress at work, and we have to find a way to relieve it. And I think that this is a very important thing to pay attention to."* They feel the problem (e.g., *"currently I am thinking a lot about how it would be possible to somehow step out of this bubble."*), but they have not yet reached the point of taking action. E.g., *"I admit that I am less athletic, and although I would like to start swimming again, but yes, well, it is difficult."* Related to this, another instructor put it this way: *"I don't do sports anymore, I am happy to just go home and take a breather."* Moreover, having one's own children can have positive or negative effects on individual recreation, relaxation. Some people talked about negative effects: "*Unfortunately, my own preferences are not determined by me, but by my children,"* while others highlighted on the positives: *"well, I have a child, and we have a dog, they need to be taken care of, and this way one does get out of the daily grind, while being connected to them."*

There are also instructors who try to *"exercise regularly, as much as time and the family allow."* They primarily use physical activity (e.g., running, walking, or playing tennis) to reduce stress, fewer people mentioned some cultural outlet (e.g., theater), and one of the instructors who participated in the interview claimed that painting helps them to relax. There were those who justified the shift in emphasis between the two

kinds of options: *"for me, the basic principle now is that I prefer excursions, hiking, the waterfront, so any opportunity, where we can be outside in the open for a little while, we can exercise in as small of a crowd as possible, so for me now, because of the confinement of the past period, this direction is more attractive, or what helps to relax, rather than mass events, or even cultural events."*

Discussion

Online education has existed for a long time, but, previously, these courses were almost always organized asynchronously (Mladenova et al., 2020). Compared to in-person education, starting these trainings took a long time since preparing the necessary educational material, getting to know the services provided by the frameworks, mastering the special methodological solutions could not be realized overnight (Bourne et al., 1997; Alqahtani & Rajkhan, 2020; Lapitan et al., 2021). However, due to the school closures resulting from the pandemic, it was necessary to switch to online education very quickly, with very little preparation (Bryson & Andres, 2020; Daniel, 2020; Scull et al., 2020). Since the essential digital content was not available, the most typical form of emergency remote teaching was synchronous teaching, which was made possible with platforms that enabled two-way communication (Grammens et al., 2022). The instructors of the University of Debrecen had the tools required available to them – be it their own personal device or one provided from the resources of the university – but for some of them, Internet access had to be expanded (compare, e.g., Dinu et al., 2021).

This was already the case during the spring semester, even though when the schools closed during the first wave of the pandemic, instructors were experimenting with the use of various types of digital tools. It often happened that during the synchronous lessons that were taught using a laptop or computer, the instructor used another device, typically a mobile phone or another computer, to receive student feedback, or for tasks that required student activity. This way, there was no need to bother with switching between the programs, and it was easier to follow and control what was happening. The situation, however, was somewhat different in the fall. Most instructors had already created the digital education environment that was most manageable for them. They became acquainted with the features and services that operated better, they were not forced to use software parallelly, and they were able to do more effective educational work. As a result, by the fall semester, the use of mobile phones, and to a lesser extent, tablets, decreased significantly, while teaching using personal computers increased.

The initial level of digital preparedness that was needed to use the tools was quite heterogeneous when it came to the different age groups. This improved significantly and became completely balanced by the end of the first pandemic wave, as those over 64, who started from the lowest level, reported the greatest progress.

Based on the excellent infrastructural conditions and the greatly enhanced digital preparedness, the majority of the instructors were to a great extent, and with a considerable amount of work, able to realize their previously planned educational goals in both examined semesters. The changed working conditions, especially the new form of education, required different solutions, methods, and tasks. Familiarizing oneself with them and preparing them generated additional burdens for the instructors. In the spring, 85.6% of the respondents reported a noticeable (including the 63%, who reported significant or very significant) increase in the workload. Although the feeling of being burdened decreased considerably in the fall semester (to 67.7%), the value we measured was still much higher than what was experienced by Watchorn et al., who examined European, Asian, and American researchers. 53% of the sample of more than a thousand people surveyed stated that they were more stressed in October 2020 compared to before (Watchorn et al., 2020).

As a direct consequence, many indicated that they were very burnt out by the end of the semesters, which was confirmed by both quantitative and qualitative tests. In addition, not only was the workload increased significantly, but the tasks were also restructured, which is completely consistent with the results of the studies conducted at a similar time (e.g., Watchorn et al., 2020; Dinu et al., 2021). The distortion that occurred between the various activities, the dominance of the teaching tasks reached such proportions, that 80% of our respondents reported some degree of decline in publishing and other professional activities.

During the qualitative data collection, it was revealed that the decline indicated during the quantitative research became especially frustrating in 2022, when the university began to introduce an evaluation system for instructors, where teaching activity, and especially its quality, matters much less than publications or other professional achievements. Quite a few felt that in spite of the hard work done throughout the pandemic, they were lagging behind in these areas, and this was setting their academic careers back. Consequently, the increasing role of scientometric indicators has a negative effect on the stress level of the instructors, and many of them experience shifts in this direction as strong coercion. What is more, many experienced that the division

between work and private life had become extremely murky due to the pandemic, and the separation between them was only partially realized upon the reopening of institutions. The constant availability provided by digital and mobile technology allows for only a meager boundary to be drawn between private life and the workplace.

As a result of this blurring of boundaries and the subsequent uneven workload, as well as the higher expectations when it comes to publication, the stress level of instructors constantly rose, and, although based on the focus group interviews, many people realize this, it can be concluded that the majority do not or cannot do anything about it. Few people pay attention to physical and/or mental regeneration and relaxation, in spite of the fact that starting from the second year of the pandemic, there had been an increase in initiatives launched by the university at large or its smaller organizational units.

Conclusions

Overall, it can be concluded that the majority of participants in the quantitative and qualitative study basically highlighted the negative effects of emergency distance education. There may be various reasons for this, but certainly, a significant role is played by the fact that a part of the few positive changes that are indicated in the answers (e.g., the development of digital competence, the acquisition of many new skills) came about as a result of these negative factors (forced learning). Meanwhile, there is no doubt, and the responses from the instructors also display that in the future, online education will play a much larger role in the life of the institutions, in spite of the fact that the educational community is still quite divided over its necessity, effectiveness, and efficiency. This is why we should not expect a sharp increase in the number of courses that are taught entirely through distance learning, but different blended solutions will certainly appear in more and more fields. In most institutions, this will require the development of digital resources, in order to ensure the potential for digital contact of adequate quality.

The development is also necessary, and more and more people see this, because in the near future, some of the workplace and professional meetings will be transferred into the online space. This process has already started, although there is no consensus among instructors when it comes to this. One camp supports digital solutions because online communication increases access to research meetings and conferences. Meanwhile, according to the other camp, virtual conferences do not actually enable professional networking, which is why they support the organization of physical meetings (Schwarz et al., 2020). In reality, however, these two camps are misleading, since this duality can exist within anyone: one can advocate for organizing institute meetings in person, while they would rather participate online at a conference organized in another country, continent. They would want to spend the time and expenses saved this way on, for example, their own recreation.

The data collected through quantitative and qualitative research, the different experiences and needs of the instructors also support the fact that institutions of higher education must, at least for a while, definitely comply to a dual system of expectations, as some prefer offline work and interaction, while others prefer them online. Therefore, a high degree of flexibility will be necessary in the future in order for instructors to be able to utilize the work and research environment that suits them best, also taking into account the needs of the students. To achieve this end, the university, and if necessary, the home work environment needs to be improved (Karatuna et al., 2022). Working conditions that meet the various needs do greatly increase the well-being of instructors. This is essential, because the happiness and well-being of teachers correlates with the well-being and performance of students (Briner & Dewberry, 2007; Roffey, 2012; Kun and Gadanecz, 2022). Satisfied teachers perform better and create more productive classrooms, with better atmospheres (Oldfield & Ainsworth, 2022), while teachers with low well-being are clearly associated with poorer job performance (Pillay et al., 2005).

We had not even completely overcome the pandemic when the war that broke out in Europe created new challenges for societies. The rapidly rising energy prices, the significant inflation force robust saving measures and economic austerity on families, governments, companies, institutions, including of course, colleges and universities. Great savings can be achieved by closing the institutions, so in this case, the demand for online solutions increases again. Now there is no need for such a sudden transition as at the beginning of the pandemic, but it would be a mistake to think that if lockdowns took place now, we would only have to again return to the well-functioning, proven solutions developed before. A work schedule did indeed emerge during the pandemic closures, but it was only an emergency solution, and it was not nearly as effective and efficient as in-person education. For this reason, the most important task for the near future is to solve this problem, which must be done in a way that the physical and mental health of those involved is not damaged, but rather improved. In light of the research results, this would be of utmost importance.

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