

Review of Higher Education Policy during the Pandemic: A Spanish Perspective.

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Abstract:

The COVID-19 pandemic has prompted profound changes in Higher Education. Thus, policymakers in different national contexts worldwide needed to design alternative responses to deal with new educational scenarios. In Spain, rethinking educational management in Higher Education remains an issue of current debate. Methodological readjustments towards virtual teaching, the digital divide due to socio-economic and cultural issues of the students, unequal access to education, or a decrease in internationalization have been some of the most significant adversities faced during this time. Amid this crisis, the measures taken by political leaders and university managers played an essential role. This study aims to provide an overview of the policy measures developed during this period, describing some of the most important decisions taken by different universities in Spain. To this end, an exploration based on secondary data from extensive literature reviews is carried out to construct a descriptive analysis of the measures implemented in Spanish universities. The findings highlight the coordinated action of the Spanish university system and the staunch defense of face-to-face teaching. This health crisis has also highlighted the deficits of this level of education and shed light on its future. Spain faces major challenges in the field of higher education. Consequently, the Spanish university system must begin building the foundations for educational innovation and training education professionals without fear of online scenarios. Finally, this article also proposes suggestions to guide policymakers in dealing with future adverse situations.

Keywords: Covid-19; higher education; emergency situation; online teaching; challenges; opportunities.

Introduction

In December 2019, a new pandemic caused by SARS-COV 2 (commonly known as coronavirus) hit the entire planet, causing numerous devastating effects in areas such as health, economy, and education (Babbar and Gupta, 2021; Geldsetzer, 2020; Pather et al., 2020; Toquero, 2021). In education, in a matter of months, the COVID-19 outbreak affected more than 1.6 billion students in more than 190 countries across all continents (WHO, 2020). According to UNESCO, more than 23.4 million students in higher education were affected (UNESCO, 2020). As the pandemic evolved globally, governments implemented a series of measures designed to contain the spread of the virus. Universities and colleges were among the first to close. In the first phase of the pandemic's impact, mandatory confinement and the impossibility of maintaining university activities face-to-face had an enormous impact on higher education institutions. As a result, several countries had to develop a contingency plan for this unexpected phenomenon. In this case, the primary objective was to implement a new educational system that would be better adapted to an unexpected pandemic situation

without a vaccine, in which the continued application of preventive security measures to control the virus was necessary (Bonilla-Guachamín, 2020). Thus, one of the general lines of action at the European level was the suspension of all face-to-face classes, leading to three major modes of action: the deployment of distance learning modalities, using various formats and platforms (with or without the use of technology); the support and mobilization of educational staff and communities; and attention to the health and well-being of students (Zhou et al., 2020; Mishra, Gupta & Shree 2020). The shift from face-to-face to distance learning did not come without challenges and obstacles, particularly access to technological infrastructure and the absence of competencies and pedagogies for distance education. At the same time, it was suggested that the forced move to distance teaching and learning offered significant opportunities to propose more flexible learning models, explore blended or hybrid learning, and blend synchronous learning with asynchronous learning (Area-Moreira et al., 2021). In this sense, one of the great challenges faced by teachers at all educational levels was the alternation of different teaching scenarios (online, hybrid, or face-to-face). This alternation was motivated by the continuous adaptations that had to be carried out in educational centers, depending on the evolution of the pandemic (Toledo, 2020).

The scientific literature also highlights another significant challenge when developing inclusive educational practices in times of pandemics. In this case, assessment was a concern, and it is necessary to highlight that teachers at all educational levels had to incorporate new assessment tools — beyond the use of ICTs or software — that were inclusive and took into account the diversity of students. In most cases, and without specific training for this purpose, the pandemic forced them to reconstruct their educational approaches, formative and summative assessment tools, and lesson plans to enter distance education platforms (Karalis, 2020).

If we explore the history of higher education, this is not the first time this educational level has faced challenges of this type. Since the creation of universities, other pandemics such as the Black Death have affected university dynamics in different geographical locations. However, universities have had to find ways to adapt and continue their commitment to science and education (Thomas & Foster, 2020).

Returning to the current scenario, the suspension of all face-to-face activities in higher education was an almost unanimous decision worldwide (Joaquín, Biana & Dacela, 2020; Karakose, 2021; El Masri & Sabzalieva, 2020). This decision was motivated by the very nature of the pandemic and to safeguard public health in the affected countries (Sahu, 2020). As a measure to contain the pandemic, school closures led to the accelerated deployment of distance learning solutions to ensure pedagogical continuity in higher education (Darras et al., 2020; Engzell, Frey, and Verhagen, 2021). Face-to-face played a fundamental role in developing active pedagogies, particularly affect-based pedagogy. Personal contact is crucial to converting the elements of knowledge to be transmitted into a reality that interpellates and mobilizes each of the students and the group (Grossi et al. 2018). This affective bonding goes hand in hand with the development of contextualized knowledge, and both elements are crucial for motivation. Confinement once again confronted us with the recurring issue of work-life balance, which affects both students and teachers. However, facing the teaching challenges associated with the virtual format mentioned previously has been a personal responsibility of the teacher rather than a matter of educational policies. Moreover, it is not at all different from the placing the responsibilities for training in the hands of teachers before the pandemic, which depended entirely on the initiative of each teacher. In a scenario of such educational complexity, an institutional response to these teaching challenges is necessary (Moye, 2021).

Although the pandemic had a considerable impact at all educational levels, higher education was particularly affected by highlighting its existing adversities that already painted a worrying picture. These problems include increasing losses of public funding, inequalities of access to this educational level, and the questionable connection between curriculum and the current demands of society (Brewer et al., 2019). Given that higher education as an essential source of talent and creativity in our world, it is necessary to analyze its current shortcomings and the challenges it must face to achieve a more sustainable and inclusive future (Means, 2013).

The global debate on how higher education institutions should act and cope with the effects of the pandemic has yielded different educational policy responses from one institution to another across the terrestrial sphere. In this case, our focus is on the Spanish context. It is important to note that higher education in Spain has been no exception when it comes to the adversities faced by the emergence of COVID-19. Ensuring the safety of the university community, the quality of teaching, and equal opportunities, are just some of the imminent challenges facing higher education institutions in Spain. Organizations such as CRUE (Conference of Rectors of Spanish Universities) have promoted a Spanish University system with strong notions of social justice in which no student is left without the right to quality education. In addition, working with health institutions and establishing joint initiatives with other public and private entities was key to decision-making on educational policy issues (El Masri & Sabzalieva, 2020; Blankenberger & Williams, 2020).

However, despite the good intentions and efforts of the Spanish university system, the pandemic has created a complex and changing scenario, which has forced us to act in a very short time, and possibly, certain responses need to be reviewed and (re) considered (Camilleri, 2021; Boer, 2021; DeMatthews et al. 2020). It is important to note that despite the regulations in force in the Spanish territory, each Spanish university has the autonomy to establish a contingency plan according to its criteria and contextual situation despite the different guidelines proposed by the government. This is why, during this pandemic period, Spanish universities have taken different decisions based on their principle of autonomy. It should be noted that almost all universities have sought to guarantee maximum presence in their classrooms, prioritizing equal access and continuation of university studies for students. However, in some periods, this presence in the classroom has been affected, and restrictive measures recommended by the health authorities have had to be considered.

This study briefly discusses how higher education has dealt with the challenge of the pandemic, focusing on the Spanish context. Our aim is to provide an overview of the political measures developed during this period and show some of the most important decisions taken by different universities in the Spanish context. In short, the objective is to analyze which measures have been implemented by some Spanish universities to deal with the health crisis generated by COVID-19. Throughout this review, we explore the various regulations, instructions, and guidelines issued by the Spanish higher education administrations during the pandemic. Furthermore, we present Spain as the object of study because we intend to describe a specific case within the European scenario. Finally, and taking these initiatives as a reference, we establish a series of political-educational implications that may be of interest for future similar situations.

Spanish contexts

From the Decree 463/2020, of March 14, declaring a state of alarm for managing the health crisis caused by Covid-19, the Spanish government declared that all

educational processes would continue through distance and online modalities, whenever and wherever possible. This measure covered compulsory and basic education (primary and secondary education) and any educational modality included in the Spanish educational system (early childhood education, baccalaureate, university education, vocational training, artistic and sports education). Faced with this situation, all the country's educational centers were forced to close their doors, adapting their educational processes to a completely online scenario.

With the exception of some universities in Spain with a long tradition in distance and online education, most of them were barely prepared for the development of this type of teaching (Crawford et al., 2020). In this context, and to ensure the greatest possible coordination between the different universities, the Ministry of Universities, in collaboration with the Ministry of Health, prepared a document containing a series of recommendations and health measures to coordinate and guide universities in this new scenario resulting from the pandemic. This document was called "*Prevention, hygiene, and health promotion measures against covid-19 for university centers in the academic year 2020-2021*".

However, the administrative and management freedom that characterizes Spanish universities (Organic Law 4/2007, April 12, 2007, amending Organic Law 6/2001, of December 21, 2001, on universities) has made it easier for these recommendations to be adapted to the characteristics of each context. Nevertheless, all universities have ensured compliance with the following fundamental principles (CRUE, 2020):

- Maintain educational quality standards,
- ensure equity and educational flexibility,
- maintain as much face-to-face activity as possible,
- ensure adherence to the planned academic calendar.

Methodology

Design and data analysis

Documentary content analysis was carried out to achieve the objectives described in the previous section. According to Bardin (1996), this makes it possible to describe, compare and explain — systematically and objectively — the content of any type of communicative text.

In the case of the present research, there were two sources under study. First, the document entitled "Covid-19 prevention, hygiene and health promotion measures for university centers in the 2020-2021 academic year" prepared by the Ministry of Universities in collaboration with the Ministry of Health; and second, the resolutions approved by the different Spanish public universities for developing contingency plans in the emergency health situation resulting from Covid-19.

All the analyzed documentation was published between March and December 2020. Thus, 20 documents were analyzed and issued, one at the national level by the Ministry of Universities and 19 by different universities throughout the country. The 19 universities were selected randomly from among the 50 Spanish public universities. Generally speaking, one university was chosen per community, except in the case of autonomous communities with many universities, such as Andalusia and Madrid, where two universities were selected.

Table 1. Documents selected for analysis

University/Institution	Publication date	Document title
1. Ministry of Universities	May 11, 2020	Covid-19 prevention, hygiene, and health promotion measures for university centers in the 2020-2021 academic year.
2. Complutense University of Madrid	July 21, 2020	A strategic teaching framework for the academic year 2020/2021
3. University of Alcalá	September 10, 2020	Plan of action for the Alacalá University to adapt the university activity in the academic year 2020-2021.
4. University of Barcelona	July 31, 2020	Contingency plan for the University of Barcelona in the face of the covid-19 health crisis.
5. University of Cantabria	July 24, 2020	Procedure for returning to the on-site activity after the confinement decreed by the state of health alert due to covid-19.
6. University of Castilla-La Mancha	August 31, 2020	UCLM Academic Contingency Plan for the development of the academic year 2020/21
7. University of Extremadura	June 15, 2020	Course 20-21 attendance procedure adapted to the "new normal" Covid-19 requirements.
8. University of Granada	June 25, 2020	Plan to adapt education in the 2020-2021 academic year to the health measures derived from the Covid-19 pandemic.
9. University of Islas Baleares	September 7, 2020	Action plan of the University of the Balearic Islands for the 2020-21 academic year in response to the covid-19 pandemic.
10. University of La Laguna	July 1, 2020	General criteria for teaching and evaluation under adapted attendance conditions during the 2020-2021 academic year.
11. University of La Rioja	December 21, 2020	Contingency plan for the 2020-2021 academic year to adapt the teaching activity to the requirements of the health situation.
12. University of Murcia	October 21, 2020	Recommended contingency plan with a semi-presence scenario to reduce risk and preserve the essential academic and research activities.
13. University of Navarra	July 31, 2020	Contingency plan for the Public University of Navarra (2020-21 academic year)
14. University of Oviedo	July 17, 2020	Teaching activity adaptation plan for the 2020-2021 academic year
15. University of País Vasco	May 31, 2020	Guidelines for teaching and learning planning for the 2020-2021 academic year.
16. University of Salamanca	August 31, 2020	Model for the adaptation of teaching at USAL for the 2020-2021 academic year
17. University of Santiago de Compostela	June 20, 2020	Guidelines for the development of safe teaching for the 2020-2021 academic year
18. University of Seville	June 19, 2020	Academic criteria for the adaptation of the official degrees of the University of Seville to the health requirements resulting from Covid-19 during the 2020-2021 academic year.
19. University of Valencia	July 15, 2020	Adaptation of the teaching of the official degrees of the university of valencia for the 2020-21 academic year.
20. University of Zaragoza	July 6, 2020	Agreement of July 6, 2020, of the Governing Council of the University of Zaragoza, whereby guidelines are adopted to address the development of teaching in the 2020-21 academic year in the new normal situation.

Source: Author's own

The choice of the universities analyzed was another significant decision that had to be addressed in this study. Therefore, selection criteria were established to offer a representative view of the different actions implemented in Spain.

First, we considered it important to select at least one university per autonomous community. Second, we limited our study to public universities, excluding private universities. In addition, it was also decisive that these universities had made their contingency plans for the COVID-19 pandemic public. Finally, it is important to point out that the documents analyzed were dated between May and September 2020 since this was when the Spanish government granted autonomy to the different universities to adapt their educational services according to the unique circumstances of the autonomous communities.

Moreover, another of the selection criteria was membership of the Shanghai Ranking, which is an academic ranking of the most prestigious universities in the world. We selected one university for each autonomous community (except for Madrid, Andalusia, and Barcelona, which, due to their large number of universities, it was decided to choose two). This selection was based on the Shanghai ranking position, choosing only those universities that were at the top of the ranking in their autonomous community.

Once the documents were selected, a thematic content analysis (Braun and Clarke, 2006) was conducted using the Nvivo 12 qualitative software. A mixed method was applied for this analysis, using a combination of deductive (conceptual/theoretical) and inductive (emergent) thematic analysis. The researchers previously defined the deductive categories after reading and analyzing the state document (*Covid-19 prevention, hygiene, and health promotion measures for university centers in the 2020-2021 academic year*). The inductive categories emerged from the data themselves after reading and analyzing the various contingency plans. Thus, the analysis started from four major deductive categories (Central categories or codes) that branched into others due to the emerging categories (Subcategories/subcodes). The following table shows the categories finally used in the study, along with their definition.

Table 2. Categories and subcategories used for the analysis

Deductive Categories/Codes (Central Categories or Codes)	Definition	Inductive Categories/Codes (Subcategories/subcodes)	Definition
<i>Contingency Plan</i>	This category collects information on the general characteristics of contingency plans.	<i>General</i>	This includes those plans that do not provide freedom of adaptation.
		<i>Per discipline</i>	This includes those plans that give freedom of adaptation to the different faculties or centers.
<i>Teaching Scenarios</i>	This category collects information on the possible scenarios that universities describe in their contingency plans.	<i>Totally virtual</i>	This includes everything related to the virtual scenario.
		<i>Face-To-Face</i>	Collects information about the face-to-face scenario.
		<i>Hybrid</i>	Gathers information on the hybrid or bimodal scenario.

<i>Online teaching requirements</i>	This category includes all those aspects related to the requirements described by the universities for the development of online teaching.	<i>Digital skills training (Teachers, pupils, Administrative and service employees)</i>	Collects information related to digital skills training.
		<i>Digital Divide</i>	Collects information on actions related to alleviating the digital divide.
		<i>Availability of resources and spaces (Virtual system improvement, classroom improvement).</i>	Collects information on adaptations of resources and spaces.
<i>Evaluation</i>	This category gathers all the information related to the teaching evaluation processes of the various contingency plans.	<i>Face-To-Face tests</i>	Collects information related to face-to-face evaluations
		<i>Telematically conducted final tests</i>	Collects information related to virtual evaluations
		<i>Other types of evaluation</i>	Collects information related to other types of evaluations

Source: Author's own

The studies were entered into the qualitative software NVIVO 12 and were coded after a critical reading of the content. Different researchers supervised this process to give greater coherence to the research process. The consultation and analysis of official documents published by the university institutions included in this study provided us with a high level of reliability due to their very nature. In addition, the search, selection, and analysis processes were carried out at all times using processes agreed upon by all the researchers involved in this research. This gave the research a greater degree of reliability and accuracy, as each aspect of the search and analysis process was agreed upon after individual reflection and discussion. In addition, to achieve quality standards, the researchers monitored the entire process to minimize potential biases by checking the credibility of the coding in the analysis program (Miles and Huberman, 1994).

Results

This section will present the results of the analysis of the main measures implemented by the selected universities. For the purposes of clarity, the results have been grouped according to the four deductive categories of the analysis. Figure 1 shows a hierarchical map of the categories (deductive) and subcategories (inductive) of the thematic analysis.

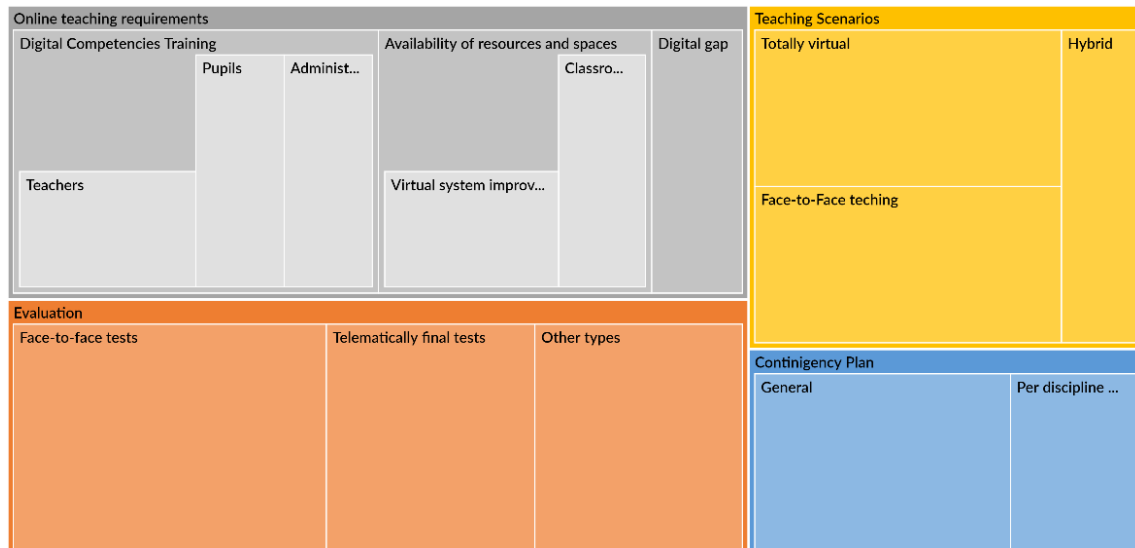


Figure 1. Hierarchical map of the categories (deductive) and subcategories
 Source: Authors' own through Nvivo 12

The contingency plan

The Ministry of Universities decreed the development of a contingency plan to gather information regarding the various adaptations made to university teaching. In this sense, the ministry recommended that these plans should gather information on areas such as teacher training, the adaptation of evaluation systems, and the development of digitalization strategies.

Despite all the recommendations proposed by the ministry, each university prepared this document, adapting the plan as much as possible to its particular circumstances. It is therefore unsurprising that this document differs slightly between universities. In this regard, the main difference observed is that, although the ministry proposed the preparation of a contingency plan for each institution and study plan, not all the universities followed this distinction, as seen, the example, in the University of Navarra and Cantabria (n = 2).

Figure 2 shows a group query of the cross-referencing of the subcategories of the "Contingency Plan" code with the contingency plans of the different universities. This figure indicates which universities included the distinction between each faculty and study plan.

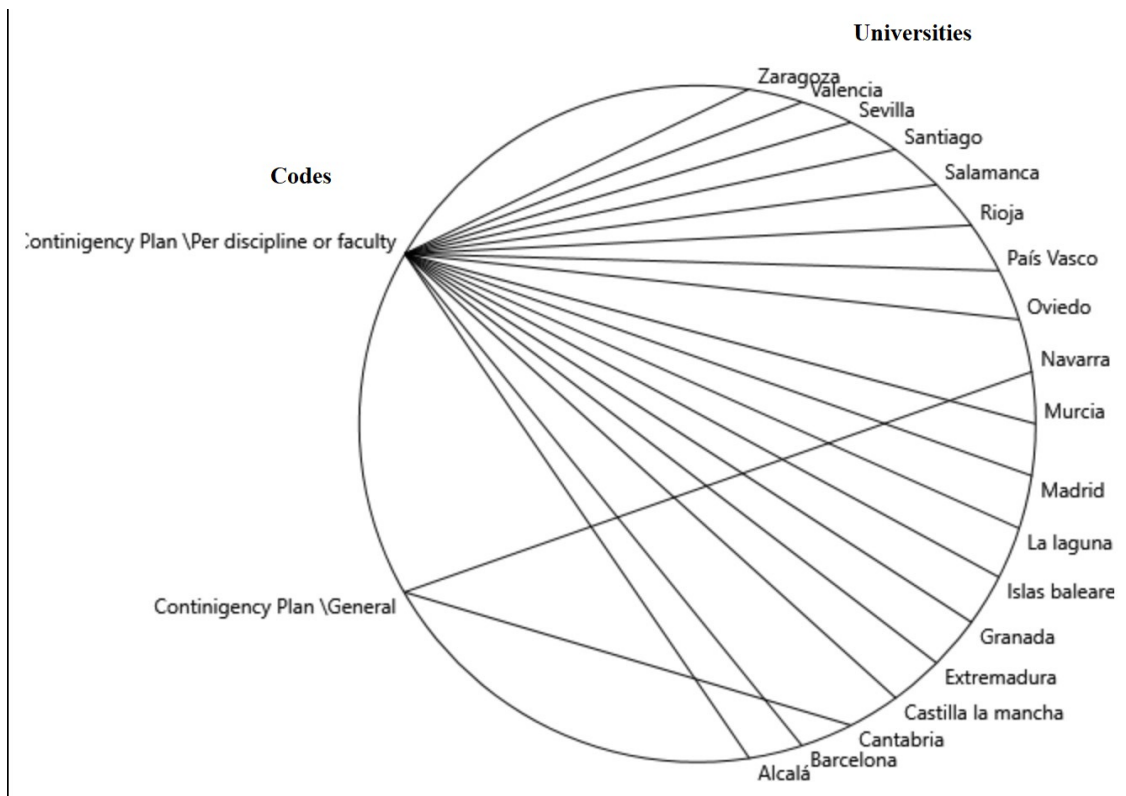


Figure 2. Contingency Plan Code Group Query
 Source: Authors' own through Nvivo 12

Online, hybrid, and face-to-face teaching

The ministry's main recommendation was to adapt teaching to a fully online format. This strategy aimed to ensure the quality of the teaching offered while safeguarding the health of the students and staff of the different university institutions.

Despite this recommendation, the ministry itself stressed in the document the need to maintain as much face-to-face teaching as possible: "*we reiterate the desirable preponderance of face-to-face teaching as the most appropriate form of quality higher education in general terms*" (p.3). To meet this objective and to respond to the health needs generated by the pandemic, the ministry included the possibility of making online teaching activities compatible with face-to-face activities, thus allowing the development of a mixed or hybrid model.

Along these lines, most Spanish universities included three different scenarios in their action plans, depending on the different healthcare requirements of the country. These possible scenarios were totally virtual teaching, hybrid or mixed teaching, and only face-to-face teaching. However, not all universities implemented all three scenarios. The following table (Table 3) shows the various scenarios considered by each university.

Table 3. Teaching scenarios considered by each institution

University/Institution	Face-to-face scenario	Online scenario	Mixed or Hybrid model
University of Alcalá	X*	X	X
University of Barcelona	X		
University of Cantabria	X		
University of Castilla-La Mancha	X	X	X
University Complutense of Madrid	X*	X	X

University of Extremadura	X	X	
University of Granada			X
University of Islas Baleares	X		X
University of La Laguna	X	X	X
University of La Rioja	X	X	X
University of Murcia	X	X	X
University of Navarra	X	X	X
University of Oviedo	X*	X	
University of País Vasco			X
University of Salamanca		X	X
University of Santiago de Compostela	X	X	X
University of Seville		X	
University of Valencia			X
University of Zaragoza			X
Total	13	12	14

*Reference is made to a pre-pandemic classroom scenario (without adaptations).

Source: Authors' own

The various universities defined the face-to-face scenario as "safe adapted face-to-face teaching," i.e., a scenario of a return to face-to-face teaching but adapted to the new normality generated by covid-19. That is, a face-to-face mode that complies with the health and hygiene standards dictated by the Ministry of Health and is based on social distancing. To this end, the universities described a series of adaptations and adjustments to their teaching spaces and furnishings to comply with these new health safety standards. Among the most popular measures were the restructuring and reduction of classroom capacity following the recommended social distancing (1.5 meters), the adoption of precautions such as the mandatory use of masks or the dispensing of hydroalcoholic gels, the regulation of entrances and exits to avoid conglomerations, and attendance control systems for tracking covid positives.

Although most of the universities analyzed contemplated this scenario in their contingency plans, some either did not contemplate it, such as the universities of Zaragoza, Valencia, Seville, Salamanca, Basque Country, and Granada (n=6); or they contemplated full attendance without considering the adaptations of the health authorities. This group includes the universities of Madrid, Oviedo, and Alcalá (n=3), which, despite including this alternative, mention the almost null possibility of being able to develop such a scenario: "Scenario 0 (unlikely). 100% face-to-face teaching with no safety distance. This is the pre-pandemic situation" (the University of Madrid, p.2).

Concerning the possible online scenario, almost the majority of the institutions analyzed (n=13) included this as a last alternative in the event of an extreme worsening of the health situation or possible new confinements of the population. In general terms, this scenario eliminated presential attendance in all teaching activities and replaced them with synchronous teaching sessions. To this end, the contingency plans of the different universities mention the need to use digital videoconferencing tools and different strategies to deal with the practical content in this completely online situation, such as 1) adapting the content; 2) reducing the size of the practical groups when the content requires face-to-face attendance; and 3) creating heterogeneous working groups according to the availability of technical resources to ensure educational equity.

The hybrid scenario is defined as the development of both online and face-to-face teaching depending on the size of the class groups and classrooms where the methodology is applied. Within this scenario, the analysis of contingency plans reveals a wide variety of possible alternatives. Thus, some universities (n=7) defend the development of

theoretical teaching virtually (synchronously) and practical face-to-face teaching (Balearic Islands, Granada, Oviedo, Salamanca, Alcalá, La Laguna, and Valencia University), while others propose practices based on the division of class groups into subgroups that rotated their presence in the classroom regardless of whether the content is practical or theoretical. This practice is most frequently mentioned in the documents on the hybrid modality (n=7). However, within this modality, there are differences between universities.

In terms of the latter, four universities mention live broadcasting of the class, with half of the students being at home (University of Castilla-La-Mancha; Extremadura, Seville, Santiago). In addition to this alternative, three universities mention the possibility of live broadcasting with half of the class from other adapted classrooms that they call "mirror classrooms." This group includes the universities of the Basque Country, Navarra, and La Rioja. According to these universities, this measure was adopted to ensure that all students could attend the virtual sessions regardless of their personal or family resources.

Finally, within the hybrid scenario, four universities also mention the possibility of repeating the classroom lessons or using digital tools to give continuity to the lessons, i.e., asynchronous teaching. However, the universities that propose this alternative (Seville, Granada, Balearic Islands, La Laguna) argue that this strategy is a complementary or substitute element when face-to-face teaching or live broadcasting is not possible due to a lack of personal or technological resources.

Regardless of all these possibilities, the documents analyzed mention two key aspects: 1) the maintenance of the maximum possible percentage of face-to-face activities -only the University of Alcalá mentions a minimum percentage of 30%-; and 2) ensuring educational equity that is, that all students receive the same amount of online and face-to-face teaching time.

Despite the scenarios proposed, all the universities emphasized their eminently face-to-face nature — following the ministry guidelines —proposing that the options of virtual and blended teaching are exceptional situations in the face of the pandemic. Thus, for example, the University of Seville mentions in its preamble that "*The University of Seville thus reaffirms its eminently face-to-face nature in the conviction that the relationships established within the university provide an important value in the exercise of the functions of creation and transmission of knowledge. Furthermore, its face-to-face nature is a fundamental element for the humanization of society, the productive development of the environment, and the socio-economic return that its territorial implementation produces*" (p.3). The University of Alcalá states: "*The University of Alcalá, as an academic institution, is based on the face-to-face teaching model. Therefore, any modification that may be necessary and affects the essence of this model will be temporary, proportional to the evolution of the health situation, and in response to the legal restrictions determined by the health authorities concerning the availability of space and its case of mobility or meeting*" (p.2).

Online teaching requirements

For the development of online teaching, the ministry proposed three fundamental pillars: training in digital skills, the availability of spaces and resources to support online teaching, and the fight against the digital divide.

Regarding digital skills training, the ministry established, as a mandatory element, the creation of training plans for teachers that contribute to developing an optimal quality blended and online education. In this sense, most Spanish universities include this aspect in their regulations (n = 15), except for universities such as Barcelona, Cantabria,

Extremadura, Murcia, and Rioja. Among the various training activities mentioned by the universities, of particular note are the creation of free online courses or webinars aimed at developing digital competencies, using digital tools, and acquiring knowledge of new online teaching methodologies.

The ministry also included the possibility of developing training plans for students. However, only a few universities ($n = 6$; Castilla-La-Mancha, Salamanca, Granada, Oviedo, Balearic Islands, and Valencia) considered this possibility. These plans consisted of developing different courses aimed at the knowledge and handling of the various digital tools made available to students. Finally, universities such as Oviedo and Granada go beyond all this by proposing training plans for administration and service employees. The following figure shows a group query showing the types of training plans contained in the contingency plans of the different universities.

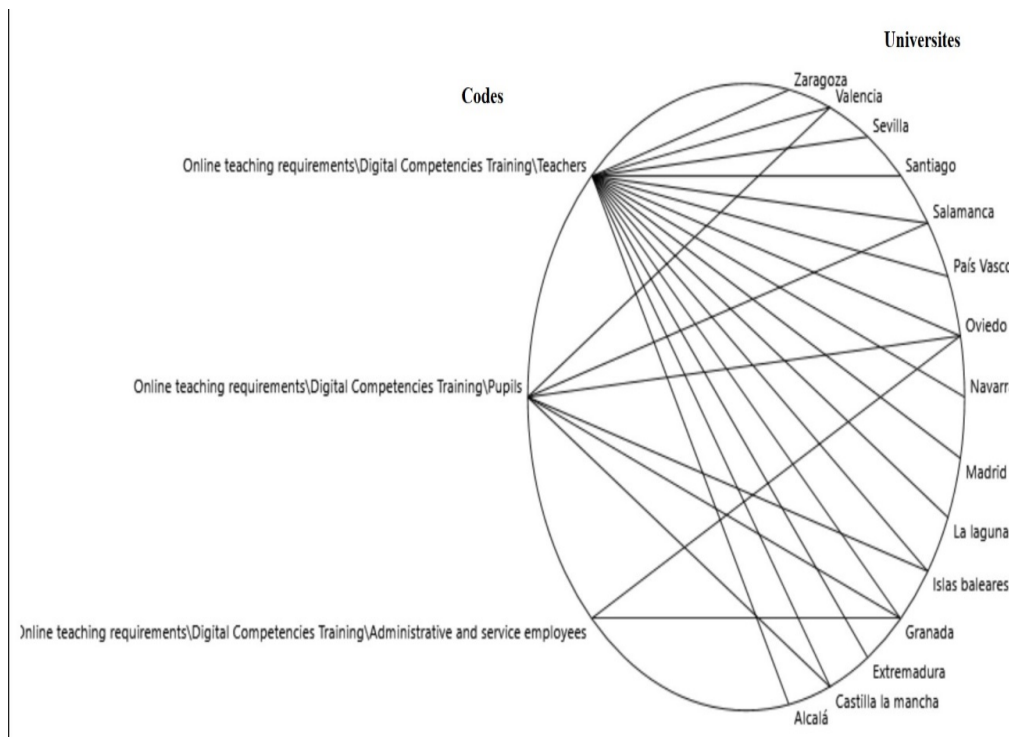


Figure 3. Training Plans group query
Source: Authors' own through Nvivo 12

Concerning the availability of resources and spaces to support teaching, the ministry recommended the need for computer systems that would allow for the adequate implementation of virtual teaching. In this sense, and with the aim of achieving this goal, the universities applied two fundamental strategies: 1) the technological improvement of classrooms for the direct retransmission of classes, and 2) the expansion of virtual and technological resources of the universities (e.g., virtual platforms, software, and internet connection). Classroom improvements included introducing cameras, microphones, digital whiteboards, and other audiovisual equipment and advanced multimedia resources to support online or hybrid teaching. However, within this group, the measures mentioned by the Universities of Alcalá and Madrid are notable, i.e., the creation of class recording studios and computer laboratories to facilitate student access to online teaching.

In terms of virtual improvements, we note advances in the e-learning and moodle ecosystems, the refurbishment of platforms to support teaching and online evaluation, the improvement and extension of iCloud work systems, the increase of virtualization resources for remote access to practice software, the increase in the number of Microsoft Office and Blackboard Collaborate licenses, a new backup and security copy policy, and the upgrade of various videoconferencing systems such as Google Meet, Skype, or Zoom.

Concerning the digital divide, the Ministry of Universities stressed the need to ensure connectivity and access to different technological resources for all university students, thus avoiding the digital divide and its possible consequences for educational equity. To this end, some universities ($n=7$) implemented a series of measures such as the introduction of scholarships and grants to provide students with computer equipment or Internet connection cards; the development of computer lending services; and the adaptation of evaluation processes (University of Granada, Balearic Islands, La Laguna, Complutense of Madrid, Navarra, Basque Country Vasco, and Sevilla). Likewise, within this group, five universities included in their contingency plans this type of assistance for teaching staff but in the form of loans, i.e., loans of the technological resources necessary for carrying out online teaching. These universities are Seville, La Laguna, Balearic Islands, Basque Country, and Complutense de Madrid.

Finally, and in the face of the economic crisis generated by the pandemic, some universities (the University of Granada and Basque Country) took other social measures to safeguard educational equity, such as allowing the payment of study fees in additional installments or even applying tuition fee waivers, COVID-19 cost-sharing assistance, and increased access to psychological support.

Evaluation

The area of evaluation is where there is the greatest disparity in actions between the universities. In general terms, the ministry recommends developing heterogeneous evaluation tests that allow for successfully assessing the acquisition of content, competencies, and learning. Despite this, it emphasizes the need to conduct face-to-face tests whenever the health situation permits.

Following these recommendations, many universities prioritized face-to-face evaluation (n = 17), and only the Universities of Valencia and Murcia did not mention this possibility. The University of Murcia does not specify anything concerning the evaluation process, leaving this decision in the hands of the various departments. For the development of this type of evaluation, the different contingency plans of the other universities mention a series of strategies to ensure health safety. Among these measures are the maintenance of social distancing in the classrooms, the use of different exam rooms for the same group to avoid overcrowding in the classrooms, or, in case of lack of space, the establishment of different exam time slots for the same group, which help to avoid overcrowding in the classroom and conglomerations at the entrance and exit of the tests.

In addition to this possibility, all the universities also considered different adaptations of the evaluation methodologies in the face of possible changes caused by the health situation. In this sense, the contingency plans of the different universities included two possible lines of action: the use of telematics for final exams or substitution of the final exams for other evaluation methodologies, mainly through continuous evaluation processes.

Regarding the former, almost all universities considered the development of fully telematic final exams as the main adaptation (n = 13). In this case, universities underline the importance of developing systems to ensure academic integrity and avoid possible litigation processes. Concerning the second possibility, many universities opted for replacing final exams (in-person or online) with another type of evaluation (n=12). In this case, the universities emphasize the importance of developing systems that ensure the maintenance of academic integrity. In this sense, the universities opted for continuous and formative assessment without the need to administer final exams. Among all the universities that mentioned this option, we should highlight the case of the University of Granada, which went a step further by developing a document with alternative methodologies and instruments for non-face-to-face evaluation.

The following table shows the various evaluation methods considered in the contingency plans of the different universities.

Table 4. Types of evaluation according to university

University/Institution	Face-to-face evaluation	Online evaluation	Other types of evaluation
University of Alcalá	X	X	X
University of Barcelona	X		
University of Cantabria	X		
University of Castilla-La Mancha	X	X	
University Complutense of Madrid	X	X	X
University of Extremadura	X		X
University of Granada	X	X	X
University of Islas Baleares	X	X	
University of La Laguna	X	X	X
University of La Rioja	X	X	X
University of Murcia			
University of Navarra	X	X	
University of Oviedo	X	X	
University of País Vasco		X	X
University of Salamanca	X		X
University of Santiago de Compostela	X	X	X
University of Seville	X	X	X
University of Valencia		X	X

University of Zaragoza	X		X
Total	16	13	12

Source: Authors' own

Conclusions

The purpose of this work was to examine the political and educational measures implemented by various Spanish universities during the pandemic. To this end, a documentary analysis of the main regulations, instructions, and guidelines published during this period was carried out. A series of conclusions were drawn from this analysis, which we will describe next.

As mentioned above, the universities have the autonomy to promote actions adapted to their particular circumstances. Despite this, in the face of a health crisis such as the one resulting from Covid-19, our findings show that universities also consider joint and coordinated action essential in this situation. This leads to better institutional strengthening and development.

In this regard, we can also observe that Spain has followed a similar line of action to the rest of the countries in the world, focusing its adaptations on aspects such as adjusting teaching to an online format, making assessment processes more flexible, and developing online platforms to facilitate teaching (Xhelili et al., 2021; Moorhouse, 2020; Valeeva & Kalimullin, 2021). One of the most important recommendations at the international level was related to student access to the internet and teacher and student training in technological resources and digital platforms. The aim of this approach was to favor and facilitate the online teaching-learning processes developed during the pandemic. This is in line with practices developed at the Spanish level, following the motto that "no one is left behind" (Reche et al., 2021).

This apparent global coordination is due, in part, to the collaboration between institutions such as the International Association of Universities (IAU), the International Institute for Higher Education in Latin America and the Caribbean (UNESCO IESALC, 2020), and the Inter-American Organization for Higher Education (IOHE). These were responsible not only for proposing possible solutions or recommendations but also for sharing good management practices developed by university institutions during this crisis.

However, despite these general guidelines that seem to have been considered by all countries, the Spanish context differs in one essential aspect: its staunch defense of face-to-face teaching. Although the Spanish university system has proposed online teaching as the main tool in the face of this crisis, the documents analyzed show a staunch defense of face-to-face teaching in the classroom, rejecting the idea of orienting its services towards purely virtual environments. This is evidence of a conception of the Spanish university system anchored in the pre-digital era, focusing on physical, face-to-face, and synchronous contact. Thus, Spanish universities resist the dynamics advocated in the scientific literature, in which a hybrid learning model is promoted, interspersing face-to-face and virtual sessions (Li, Li & Han, 2021; Wirani & Manurung, 2020).

Furthermore, it is worth noting that among the measures proposed by the ministry, there is no mention of educational policy and measures following the pandemic. This suggests that the decisions taken as a result of the pandemic were of an urgent nature and were simply a means of responding to the health crisis without any intention of opening a debate on the digital transformation of universities. This analysis, therefore, demonstrates the clear presential nature of the Spanish university system.

Implications for educational authorities and professional practice

After a brief summary of these general orientations and actions developed nationally and internationally, we consider it interesting to point out a series of political and educational implications that could help future health crises or social/natural disasters.

- *Designing learning activities that are adapted to different learning environments.* Due to the emergence of this new health crisis, many lessons must be considered, including the need to adapt university teaching processes to virtual scenarios. In this sense, some recommendations and didactic guidelines might encourage the use of new hybrid methodologies that intersperse face-to-face and online spaces within the teaching plans/guides.

- *Promotion of digital pedagogies in the curriculum.* The advent of the pandemic and the "new normal" has fostered new ways of teaching that focus on networked communication, digital narratives, performance, and social networks. University teachers should therefore consider these new methodological approaches.

- *Evaluation during the pandemic has clearly pushed the teaching process to the limit.* This challenge has seriously raised questions about the maturity of the digital transformation strategies in the university system. Online assessment has clearly laid bare the idea that digital transformation is not the same as process digitalization and that technology advances faster than its acceptance and legal adequacy (González-González et al., 2020). For this same reason, we believe that university governance teams have much to reflect on to integrate technology into their educational models and make advances in hybrid modalities that know how to take advantage of resources and means without rejecting the best face-to-face and virtual learning practices. To this end, it is also necessary to rethink teacher training plans, both in terms of the contents and competencies to be promoted and in the teaching formats in which they are to be developed (García-Peñalvo, 2020).

- *The future use of methodological adaptations.* The changes promoted by the universities included in this article may become especially relevant and useful if we return to scenarios similar to the one experienced amid the COVID-19 crisis. These experiences also allow us to respond to the needs of students whose academic activity has been modified due to work or personal changes derived from the pandemic. However, this requires a modification in the planning of the teaching methodology and existing resources, as well as the legal regulations on data protection. Furthermore, greater use of technology implies transformation of the teaching-learning processes, which requires prior work by multidisciplinary teams of specialists in information security, networks, and programming beyond the teaching exercise (Fluck, 2019; Pathak, 2016).

- *Reorientation of university teaching and research post-COVID-19.* The health crisis has opened up a new field of study in education. This makes the need to investigate the potential and limitations of e-learning in times of pandemics a priority. This adds value to research aimed at improving university teaching in the aftermath of the COVID-19 pandemic. In addition, this health crisis should be seen as a catalyst for the digitization of the university system.

- *There still remains a struggle for gender equality, equity, and inclusion in university classrooms and at the professional level within higher education.* It is essential to make visible the gender, social, and economic inequalities in the university environment, which have come to the forefront during the pandemic

among students, teaching staff, and families. It would be interesting to approach this action from a feminist perspective and with strong social justice values.

- *Teacher training in higher education.* This aspect is a key and decisive factor in achieving a true curricular adaptation to new circumstances and future situations. For this reason, training in new hybrid educational methodologies could be the way of the future and bring continuity and flexibility to the online work that teachers and students need today more than ever.

- *The provision of emotional support to students and their families.* This is especially important for those who might require more educational support in the proposed initiatives and activities. In addition, it is important to consider and assess whether students have sufficient resources in their environment to favor real learning, including technological tools, support staff, and educational support materials.

- *Strengthening the resilience of education systems to achieve equitable and sustainable development.* Building resilient education systems is a fundamental axis for change. Learning from the lessons of the pandemic will ensure the equitable and sustainable development of higher education. Moreover, this resilience must be strengthened through strong and distributed leadership networks.

- *Coordination and consolidated leadership for Day After and future pandemics.* The COVID-19 crisis has shown us the important changes and new trends in leadership that should be approached from a cross-cutting perspective and with international synergies for the common good. Although this is a historical challenge, it is also an opportunity to strengthen leadership networks in higher education. According to current research in this area, leadership based on horizontality, social justice, and collective commitment would be key in these adverse times and help us to face the ever-closer Day After.

- *Providing technological educational resources to the most disadvantaged groups.* The current pandemic has provided yet another scenario of social and economic inequalities of the student body in higher education. This, of course, has led to a loss in enrolment numbers and an increase in the number of students who have decided to give up their studies due to a lack of financial resources. However, it is also important to mention other shortcomings regarding the resources necessary to develop virtual teaching in this period. In this case, we consider that technological resources applied to education are a great pillar of action to alleviate the inaccessibility of education during this health crisis. In this regard, laptops, tablets, digital devices, and the provision of a free network would provide much-needed support for university students in these types of circumstances.

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