Centre monitoring report

Doctoral School

Academic year 2019-2020

16 February 2021

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*Internal Quality Assurance System Manual (MSGIQ) (PO07_Roll out,
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Universitat Oberta de Catalunya

1. Basic identification details

Director of the School (centre)	Dr David Masip Rodó (dmasipr@uoc.edu)
Person(s) in charge of drawing up the Doctoral School Monitoring Report	Dr David Masip Rodó (dmasipr@uoc.edu) Dr Mireia Fernández-Ardèvol (mfernandezar@uoc.edu) Dr Elena Barberà Gregori (ebarbera@uoc.edu) Dr Ferran Adelantado Freixer (ferranadelantado@uoc.edu) Dr Angel A. Juan Pérez (ajuanp@uoc.edu)
Body and date of approval	Management Committee, 16 February 2021.

Name of the qualification	RUCT code	Year of implementation*	Verification	Modification	Accreditation
Doctoral programme in the Information and Knowledge Society	5600386	2013-2014	25/09/2013	14/03/2016	15/10/2019
Doctoral programme in Education and ICT (E-learning)	5600387	2013-2014	23/07/2013	14/03/2016	15/10/2019
Doctoral programme in Network and Information Technologies	5600006	2013-2014	28/12/2012	14/03/2016	15/10/2019
Doctoral programme in Bioinformatics.	5601327	2017-2018	11/07/2017	-	-

* The doctoral programme in the Information and Knowledge Society and the doctoral programme in Education and ICT (E-learning) were re-verified in the academic year 2013-2014.

2. Preparation of the report

The Doctoral School centre monitoring report has been drawn up by the director of the Doctoral School with support from the Management Committee, which is composed of:

- Dr David Masip Rodó (director of the Doctoral School)
- Dr Mireia Fernández-Ardèvol (director of the Information and Knowledge Society programme)
- Dr Elena Barberà Gregori (director of the Education and ICT (E-learning) programme)
- Dr Ferran Adelantado Freixer (director of the Network and Information Technologies programme)
- Dr Angel A. Juan Pérez (director of the Bioinformatics programme)
- Ms Marga Franco i Casamitjana (Doctoral School programme manager)

Although according to the process of the Internal Quality Assurance System Manual (MSGIQ) (PO07), monitoring reports for the programmes and the Doctoral School are drawn up every two years (the most recent one relates to academic years 2017-2018 and 2018-2019, and the next one will cover academic years 2019-2020 and 2020-2021), as an exception, a short-format Doctoral School Monitoring Report

is presented this year to record the extraordinary academic measures put in place in academic year 2019-2020 as a result of COVID-19, together with an assessment of the results of these changes, as per the guidelines established in this regard by the Catalan University Quality Assurance Agency (AQU).

Once the first version of the report had been drawn up, it was provided to the Planning and Quality department contact person, and the director of the Doctoral School made the relevant amendments following that team's feedback. Once the report had been completed, it was reviewed and presented at the Management Committee meeting (see Section 1, "Basic identification details "), and validated and approved on 16 February 2021.

3. Assessment of programmes

This academic year has been marked by the extraordinary situation resulting from the emergence of COVID-19 and its social consequences. It has had a clear impact on academic activity, and doctoral programmes have been significantly affected. This uncertainty has mainly affected doctoral studies in the ways explained below.

Full or partial lockdowns have affected research activities, with particular impact on theses whose working method was based on active observation, focus groups, fieldwork or face-to-face interviews. In July, doctoral candidates with a grant were sent a survey about the impact of COVID-19 on their research. The survey was sent to 46 predoctoral researchers, 67.4% of whom responded (see Annex 6).

- Regarding the work environment provided, 80.6% believed that the ergonomic equipment had got worse; 74.2% felt that the availability of a quiet environment had declined; 48.4% considered that access to software had remained the same; 51.6% said that access to the Internet connection was the same; and 83.9% stated that access to libraries or work materials had got worse.
- Regarding thesis planning: 71% stated that fieldwork planning had got worse; 64.6% that data collection was worse; and 74.2% that the thesis writing stage had got worse. 77.4% considered that the option of carrying out research visits had deteriorated; and 70.9% stated that the option of taking short courses had got worse. 19.4% considered taking time off their thesis; 12.9% thought of giving it up entirely; and 6.5% decided to extend it. 48.4% of respondents believed they were between 1 and 3 months behind schedule; 35.5% between 4 and 6 months; and 19.4% more than six months.
- Regarding their emotional state: 41.9% rated their motivation to carry out their research as 2 out of 5: and 22.6% as 1 out of 5. 48.4% were very concerned about their future after completing their doctorate. 38.7% of respondents rated their emotional state as "a lot worse" since the pandemic (1 out of 5); and 48.4% as "worse" (2 out of 5). 41.9% reported being much more stressed after the start of the pandemic.
- International predoctoral researchers reported being more concerned about their legal status after the start of the pandemic than before it (46.6%); others were just as concerned (33.3%); and a third group felt more or less confident (20%). Their concern grew when asked about the option of finding employment in Spain, with 53.4% reporting being much more concerned. These results are very similar to those obtained when asked about returning to their country, where 53.4% reported being very concerned. International students were more stressed about the future in relation to matters such as their academic activity, career opportunities and legal status in Spain.

The state of alarm has led to a **teleworking situation** that has in many cases caused low morale and psychological problems for doctoral candidates who are away from their countries of origin. This increases in cases in which the situation in those countries of origin has been even more serious than in Spain. As of the date of this report, the widespread teleworking situation continues and is not expected to change before July 2021.

Research visits have been generally suspended. Doctoral students have had to cancel their scheduled stays, in many cases after obtaining funding for them. Future stays have also been affected as, at the time of writing, they are still on hold. These factors relate not only to the pandemic situation in Spain but also to that of the possible countries of destination. Uncertainty regarding the local development of the pandemic adds to the uncertainty of all the countries that are potential destinations for doctoral candidates. The percentage of research visits carried out in academic year 2019-2020 was 2.1%, which is 0.8% lower than in the previous academic year. Three doctoral candidates (one from the e-Learning programme and two from the Information and Knowledge Society programme) not merely postponed their stay but completely gave up on doing it in the future. The fall is expected to be sharper in academic year 2020-2021. The impact on final-year doctoral candidates is particularly serious, as it affects the future results of theses relating to an international doctoral degree.

The opportunities to **attend conferences** have been seriously restricted, and conferences can currently only be attended if they are held online. This has very serious consequences for doctoral candidates' ability to build their own network of contacts and develop specific research dissemination competencies. **External training** in the sense of attending specific courses, summer/autumn/winter schools or workshops, has also been affected. Most events have been similarly cancelled. The **inability to travel and hold face-to-face gatherings** has affected the establishment of thesis expert panels to assess the papers submitted during the state of alarm.

This serious impact has affected many research plans and forced doctoral candidates to change the methods for validating their hypotheses, which has led to a delay in the tasks assigned to them. At the time of writing, the uncertainty is still there, following the declaration of another state of alarm until May 2021, and we cannot predict when these activities (e.g. stays, training or conference attendance) will be able to resume. This monitoring report sets out the details of this impact, as well as of the extraordinary measures taken by the University to mitigate the above-mentioned effects of the pandemic (see section 4).

As to the monitoring of programmes, the report sets out the overall results for the centre and the results for each doctoral programme that was being carried out during the period under assessment (doctoral programmes in the Information and Knowledge Society, Education and ICT (E-learning), Network and Information Technologies, and Bioinformatics). Table 1 shows the numerical indicators for each case. The report focuses on those indicators that are useful for assessing the impact of the pandemic on doctoral studies. COVID-19 is not expected to have affected admission profiles and previous qualifications; lines of research and changes, which are covered in the ordinary monitoring reports; or public information.

Overall, admission data have been as usual for the programmes, without any noticeable effects from the COVID-19 pandemic. This is due to the fact that the admission process for academic year 2019-2020 took place well in advance, in December 2018 and January 2019, when the problems resulting from the pandemic had not yet arisen. Similarly, the admissions process for academic year 2020-2021 (which only just started in September 2021 and, therefore, outside the period under assessment) took place in December 2019 and January 2020 and was therefore also unaffected by the global situation arising from COVID-19. Any possible impact on the admission data of any of the programmes is expected to become apparent in the next process, open from 1 December 2020 to 12 February 2021. A fall in the number of thesis defences relating to international doctoral degrees, as well as increased career uncertainty for graduates, is also expected.

Of the small number of theses read during academic year 2019-2020 (just 16), 3 were defended online (between March 2020 and July 2020, the end of the academic year), and 13 in person before the pandemic. As expected, all thesis defences are being held online this academic year 2020-2021. The Doctoral School has designed an online thesis defence protocol under which the President authorises each thesis and compliance with the principles laid down in Royal Decree 99/2011 and the Academic Regulations on doctoral studies at the UOC (see section 4 of this document) is monitored at all times.

During academic year 2019-2020, two new programmes became available (the doctoral programme in Health and Psychology, and the doctoral programme in Humanities and Communication), as well as two joint degree programmes that are only just starting (the doctoral programme in Tourism, and the doctoral programme in Business Administration and Management). At the time of writing, these programmes have only been running for three months, and there are no significant data as yet (as they pertain to academic year 2020-2021). The next ordinary monitoring reports will thoroughly document the impact of these new programmes on the previous programmes (academic record transfers) and the initial results regarding admission and assessment.

As to career and guidance services, a new Office of the Vice President for Competitiveness and Employability was created in February 2019. The Office is responsible for leading and directing the strategy for contact and relations with the economic and industrial world and for planning transfer and entrepreneurship by maintaining an active relationship with the various stakeholders. This new office of the vice president brings together, among others, the career and job bank services that were previously carried out by UOC Alumni, in order to bring the services together under one roof and provide them to all the University's graduates, reinforcing the support given to them to help them use the knowledge and skills acquired in their training for professional purposes and help them move forward in their career. Thus, for example, the new Employability and Career Services department organized the 1st edition of the Virtual Employment Fair, held on 16 and 17 November 2020, in which companies have a virtual stand from which to attract talent using a space for quick interviews with candidates, publishing their offers and accessing the CVs of interested candidates, and where students and graduates can register for any offers that are of interest to them. This office of the vice president is also organizing the internal processes that can be offered by the University to provide more support to industrial doctoral programmes and try to increase the number of theses in this area.

The UOC uses data from the report on the employment rate of all holders of a doctorate in Catalonia carried out by the AQU every three years to check whether the programmes meet the aim of improving graduates' employability as well as whether new aspects or approaches should be included in their designs. Table 1 sets out the results for 2020, which are aggregated for all universities.

Survey of hired predoctoral researchers

The predoctoral researchers who had been hired answered a survey to assess the impact of the pandemic on their work. The most relevant results were presented at a bimonthly meeting with the director of the Doctoral School. Their answers can be summarized as follows:
- The tasks planned in their research plan had been delayed by between 1 and 3 months (48.4%) or between 4 and 6 months (35.5%), and only 3.2% of doctoral candidates considered that they were able to carry out their work as planned in their schedule. The main reasons for this (verbatim answers) were: postponement of experiments involving participant observation, cancellation/interruption of stays, cancellation of all face-to-face interviews, inability to consult

primary bibliographic sources, and difficulties preparing an appropriate space at home to carry out their research.
-   Most predoctoral researchers share a house or flat, with the following numbers: sharing with 1 other person (45.2%), sharing with 2 or 3 people (32.3%), 4 or more people (16.1%), more than 6 people (3.2%), and only 3.2% live on their own. This had a serious effect on their ability to concentrate at home.
-   In terms of psychological impact (average rating of the answers, with a scale from 1 to 5, where 5 means "very high"), students were stressed (3.2), less motivated (2.4), faced low future prospects (2.1), and felt demoralized (1.9).

Satisfaction survey among doctoral candidates

Like every year, doctoral candidates in academic year 2019-2020 took part in a satisfaction survey. The survey contained 10 questions, plus 5 social and employment questions. Below are the most relevant results:
-   Students were less satisfied with the information mechanisms (59%) than other UOC students, but this figure has been increasing in recent years.
-   As to satisfaction with the enrolment process (59%), the results were also lower than for the rest of the University, but with a slight uptick.
-   The satisfaction rating given for courses, which is measured from the previous academic year, was the same (73%) as for the University's other official programmes.
-   The rate of satisfaction with teaching (61%) was below average for the University's official programme students.
-   Teaching-learning resources received a higher rating (79%) than the other official programmes.
-   The satisfaction ratings for the assessment model were high (71%), at the same level as the other programmes.
-   Overall satisfaction for academic year 2019-2020 obtained a similar rating (66%) to the University's other degrees, and stayed at the same level as in previous years.
-   The majority of doctoral candidates (66%) would recommend studying at the UOC, with the same rating as previous years.

Survey among teaching staff who were supervising theses

The survey contained 16 questions, which were answered anonymously (only data from full answers is reported) by a total of 19 thesis supervisors out of the 85 to whom it was sent. The results are not very varied, as all thesis supervisors were satisfied or very satisfied with virtually all aspects. Below are the most relevant results:
-   Thesis supervisors asserted that they were satisfied or very satisfied (77.3%) with the time spent on their doctoral candidate.
-   They felt (86.4%) satisfied or very satisfied with the joint work on doctoral candidates' interdisciplinary competencies during their thesis.
-   They were satisfied or very satisfied (81.8%) that the doctoral programme had suitable annual assessment and quality control tools for doctoral theses.

Survey of graduates during academic year 2019-2020

The survey sent to graduates of all doctoral programmes contained 12 questions. Below are the most relevant results:
- A small majority of graduates (66%) stated that they would choose the same programme again. This result was much lower than for other official programme students.
- All respondents (100%) said that they would choose the same university again. This was the highest result for all graduates of all programmes.

Table 1.

	Information and Knowledge Society		Education and ICT		Network and Information Technologies		Bioinformatics		Doctoral School	
Offer of places	35		20		20		4		79	
Demand	276		268		191		50		785	
New students	35		14		15		3		67	
Total number of students	151		77		52		5		285	
Percentage of foreign students enrolled	47	31.13%	36	46.75%	23	44.23%	#N/A		106	37.32%
Percentage of part-time students	116	76.82%	61	79.22%	36	69.23%	5	100%	217	76.41%
Percentage of students with a grant	35	23.18%	16	20.78%	18	34.62%	#N/A	#N/A	69	24.30%
Student satisfaction with the faculties	3.92 out of 5	70.6%	3.77 out of 5	57.7%	3.79 out of 5	68.4%	N/A	N/A	3.86 out of 5	66.7%
Thesis supervisor satisfaction with the faculties	4.17 out of 5	75%	4.50 out of 5	75%	4 out of 5	75%	4.50 out of 5	100%		77.3%
Number of full-time theses defended	1	11.11%	2	33.33%	0	0%	N/A	N/A	3	18.75%
Number of part-time theses defended	8	88.89%	4	66.67%	1	100%	N/A	N/A	13	81.25%
Number of theses defended on-site	7		5		1		N/A	N/A	13	81.25%
Number of theses defended online	2		1		0		N/A	N/A	3	18.75%
Programme attrition rate	3	1.99%	14	18.18%	3	13.04%	1	0.25%	21	7.39%
Percentage of theses with a cum laude distinction	7	77.7%	2	50%	1	100%			10	68.7%
Percentage of people with an international doctoral degree	3	33.33%	1	16.67%	0	0.00%	0	N/A	4	25%
Number of scientific results of doctoral theses	43		15		10		0	N/A	68	
Percentage of doctoral programme students who have carried out research visits		3.9%	0	0%	0	0%	0	0		2.1%
Employment rate (see Annex 7)[1]		95%		95%		96%		96.5%		95.6%

3.1. Doctoral programme in the Information and Knowledge Society

The programme has undergone two very significant changes, unrelated to the effects of the pandemic, during the period under assessment. First, there has been a change in the director of the programme, with Dr Mireia Fernández-Ardèvol replacing Dr Joan Pujolar Cos, who will now be coordinating the new

[1] Data taken from the AQU's employability report (2020).

Humanities and Communication programme. In addition, the optional course Interdisciplinary Analysis of the Network Society is temporarily unavailable because the professor who specializes in this subject area, Dr Manuel Castells, has been appointed Minister of Universities by the Spanish Government and is currently on leave of absence.

In terms of indicators, the results in Table 1 are very similar to those of the previous periods assessed, with an admission process under which places are filled, a high percentage of foreign students (31.8%) and a slightly lower number of thesis defences than expected (9 theses defended). This is not surprising in view of the extensions of grants until January 2021. This means that students have more time and will defend their theses in academic year 2020-2021, outside the period under analysis.

Table 2 shows the percentage of students distributed between the programme's various lines of research. Doctoral theses are very spread out between the various lines of research.

Table 2.

Research line	Percentage of students
Basic and applied health sciences	13 (8.61%)
Communication and new media	22 (14.57%)
Information and knowledge management	10 (6.62%)
Psychology, technology and society	11 (7.28%)
Economy, business and labour	33 (21.85%)
Law and criminology in the information society	15 (9.93%)
Politics, democracy and human rights	12 (7.95%)
Culture, society and language	35 (23.18%)

3.2. Doctoral programme in Education and ICT (E-learning)

In terms of indicators, Table 1 shows similar admission results to those of previous years (it must be noted that the admission process for the period under assessment took place in December 2019 and January 2020), still in a normal pre-pandemic situation. The graduation data are also consistent with the usual results, with foreign students accounting for over 48% of enrolled students. The effects of the pandemic are expected to be felt in the coming semesters, when we should see a decrease in international doctoral degrees, linked to the difficulties involved in carrying out stays in the current circumstances, and an increase in the average duration of the programme. This is as a result of the extensions made to predoctoral contracts and stays. However, the evolution of these indicators will be monitored to identify any possible dysfunctions and problems in the future.

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Table 3 shows the percentage of doctoral theses distributed between all the lines of the program. The research line with the most students is Flexible and Open Online Education, and the least popular is Challenges for Sustainable Management and Organization in Online Education.

Table 3.

Research line	Percentage of students
Responsive Teaching and Learning Processes and Outcomes in Online Education	24.33%
Challenges for Sustainable Management and Organization in Online Education	8.5%
Technologies for Supporting Teaching and Learning	27.33%
Flexible and Open Online Education	39.83%

During the period under assessment, a new series of online presentations started under the programme. All doctoral candidates take part in this, with the dual aim of fostering mutual support between doctoral candidates and enabling shared knowledge of the theses being produced. They are known as PHD Open Sessions.

3.3. Doctoral programme in Network and Information Technologies

In terms of indicators, Table 4 also shows similar admission results to those of previous years. Similarly, the effects of the pandemic are expected to be felt in the coming semesters, when we should see a decrease in international doctoral degrees (due to the difficulties involved in carrying out research stays) and an increase in the average duration of the programme. This is as a result of the extensions made to predoctoral contracts and stays. However, the evolution of these indicators will be monitored to identify any possible dysfunctions and problems in the future. The impact of the first few months of the pandemic has resulted in a slight fall in the number of thesis defences (three were defended in the period under assessment). However, thanks to the steps taken by the Doctoral School (particularly the extension of predoctoral contracts and of the maximum amount of time allowed for theses), the number of thesis defences started going up in the first semester of academic year 2020-2021 (three doctoral theses were defended between October and December).

Table 4.

Research line	Percentage of students
Computer Vision, Machine Learning and Pattern Recognition	8 (15.38%)
Distributed, Parallel and Collaborative Systems	4 (7.69%)

Simulation and Optimization	11 (21.15%)
Management of ICT Systems and Services	5 (9.62%)
Information and Network Security and Privacy	4 (7.69%)
Knowledge Technologies	0
Learning Technologies	3 (5.77%)
Software Engineering	1 (1.92%)
Wireless Networks and IoE	4 (7.69%)
Human-Computer Interaction, Design and Multimedia	10 (19.23%)
Applications of Geographic Information Systems	1 (1.92%)
Complex Systems	1 (1.92%)
Data Science	0

3.4. Doctoral programme in Bioinformatics

The joint degree programme is still in its infancy, and no students graduated in this period. The first doctoral thesis defence under this programme (which was carried out remotely and in accordance with the terms of this extraordinary monitoring report) took place on 28 December 2020, outside the assessment period covered by this report.

In terms of indicators, the results in Table 5 are still very preliminary, without data on thesis defences, average thesis completion times or other graduation indicators. Only one student dropped out during the programme, and the number of students admitted is based on the thesis supervision capacity of the teaching staff involved in the programme and the agreement between the various universities (Universitat Autònoma de Barcelona, University of Girona, University of Lleida, University of Vic - Central University of Catalonia, Universitat Politècnica de Catalunya and Universitat Oberta de Catalunya).

Table 5.

Research line	Percentage of students
Data Science in Bioinformatics	4 (100%)

4. List of changes resulting from the COVID-19 health crisis

Pursuant to the UOC's Executive Board Decision on Extraordinary Measures in Response to the COVID-19 Crisis of 30 March 2020 (the "EB Decision"), the following general measures were adopted: making the delivery deadlines for assessable work flexible; online final tests; and adapting internships to teleworking, virtual format or any other alternatives that may be suitable for each programme in accordance with the criteria agreed in the framework of the Catalan University System (SUC).

In view of the impossibility of holding face-to-face activities due to the exceptional situation resulting from COVID-19, the academic regulations were temporarily amended to ensure that all students could have a final assessment. The following measures were approved:

- The **final assessment tests will be conducted online** for bachelor's degrees, university master's degrees, the Centre for Modern Languages and open courses this semester.

- All **thesis defences** will also be conducted **online** (for all bachelor's degrees, master's degrees and other postgraduate studies).

- All **internships will take place online**, via teleworking, or through other related activities where other options are not possible.

Communication actions have been carried out in a structured manner in order to ensure that the extraordinary measures were known to all stakeholders and reinforced by means of regular monitoring meetings of the Office of the Vice President for Teaching and Learning with the Student Council Standing Committee.

In order to establish the students' assessment of all the measures put in place, a number of specific questions were added to the end-of-year survey, and the results for each qualification have been included in the monitoring reports.

The following academic content measures were adopted for doctoral programmes, and the following temporary modifications were applied to the academic planning for academic year 2019-2020:

- Extension of grants for full-time predoctoral researchers for a period equivalent to the duration of the state of alarm. The UOC's Executive Board adhered (in spite of not being required to do so) to the Thirteenth Additional Provision of Royal Decree-Law 11/2020 of 31 March adopting urgent additional measures in the social and economic sphere in response to the COVID-19 situation. This Royal Decree-Law provides the option of extending contracts under calls for human resources of the funding bodies of the Spanish Science, Technology and Innovation System for a period equivalent to the duration of the state of alarm. The contracts affected by this Royal Decree-Law were those expiring between 2 April 2020 and 1 April 2021 (known internally as doctoral candidates in the third or last year of their grant).

- Extension of stays in those cases in which the voluntary extensions had been exhausted. Students in their final year under the academic progress regulations in a doctoral programme who have used up all the extensions provided for in the regulations may apply for an extraordinary extension for the duration of the state of alarm if this situation has negatively affected the progress of their thesis.

- <u>Online thesis defences</u>. Since March 2020 and until July 2021, UOC buildings will not be available for ordinary activities, and group meetings are not allowed. This has delayed the defence of theses, and some predoctoral researchers needed to graduate in order to apply for postdoctoral positions. In coordination with the other universities in Spain (the Conference of Directors of Doctoral Schools (CDED) and the Catalan Association of Doctoral Schools (ACED)), the UOC established the online thesis defence protocol and regulatory mechanisms.

The protocol ensures compliance with Royal Decree 99/2011 and with the Academic Regulations applicable to doctoral studies at the UOC, which had already provided for two articles on online thesis defences in the future. Some of the actions added to the online defence of theses are: simultaneous presentation and Q&A session at the same event, digital signing of reading certificates by multiple signatories, and anonymous voting on the grade (*cum laude*) by the members of the thesis examination committee. In order to provide these guarantees, the UOC has used the platforms Google Meet and SignatureIT, and Google anonymous forms. Each online thesis defence is pre-authorized in writing by the President following the submission of relevant arguments by the doctoral candidate (authorizations in the Annex).

A consequence of this situation is the current national (CDED) debate on this measure, where it is deemed to have been very successful, and many universities in the Spanish university system have included it in their permanent system as another format for thesis defences in the post-pandemic future. The UOC has done this too, seeing that the necessary guarantees for a thesis defence can be fully achieved and this effort is important for candidates living abroad (who account for about half of all doctoral candidates at the UOC, with 47 nationalities currently represented in the programmes as a whole—accounting for 40% of the total number of students).

The thesis defences carried out online were highly rated by all parties involved, including members of the thesis examination committee, thesis supervisors and doctoral candidates.

- <u>Deferral of predoctoral contracts for 2020-2021</u>. Although this measure affects academic year 2020-2021, which is not the subject of assessment in this monitoring report, it was decided to defer the start date of predoctoral contracts for academic year 2020-2021 to 1 December (instead of 1 October) due to the impact of the pandemic and the difficulties involved in carrying out the necessary legal procedures (such as visas and work permits) for these researchers, in order to enable them to start with the necessary assurances at the start of autumn.

- <u>Monitoring of doctoral candidates with a grant</u>. The director of the Doctoral School chairs bimonthly meetings with the Doctoral School team and doctoral candidates at which the impact of the pandemic on this group is gradually monitored and solutions to the resulting problems are discussed.

5. Attachments

Annex 1. Sample letter from the president regarding online thesis defences.
- [Individual decision of the president for the approval of online defences](#)
- [Folder with the president's decisions on online defences](#)

Annex 2. Decision to extend the duration of grants: Attach the Royal Decree and the Communication from the Office of the Vice President.
- Royal Decree with urgent measures due to the situation arising from COVID-19

Annex 3. Decision for extending stay periods and fees.

Annex 4. Decision of the Executive Board.
- Executive Board Decision of 30 March 2020.
- Governing Council Decision of 13 July 2020.
- Doctoral School Management Committee, 14 October 2020.
- Doctoral School Management Committee, 16 September 2020.
- Doctoral School Management Committee, 14 July 2020.
- Doctoral School Management Committee, 2 June 2020.
- Doctoral School Management Committee, 5 May 2020.
- Doctoral School Management Committee, 7 April 2020.

Annex 5. Grant start decision of 1 December.

Annex 6. Results of the survey sent to doctoral candidates with a grant regarding the impact of COVID-19 on their research.

Annex 7. Report on the employment rate of all holders of a doctorate in Catalonia.

6. Improvement actions

See the document on improvement actions.

Improvement actions. Centre monitoring report. Doctoral School

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Monitoring of improvement actions and Improvement Plan 2019-2020

Level	Qualifi cation	Origin	Stan- dard	Weakness identified	Scope	Description of the cause	Proposed action	Prioritization / Impact	Applicati on period	Monitoring indicator	Party responsible	Status	Observations
AM_ce ntre	-	2	E1	Organizing a welcome event for students, possibly using video conferencing channels.	Faculti es	Students need to have some contact with the university and some generic information on the programmes.	Creating a guide to the programme with generic information to ensure that students have it from the beginning.	Improved results from the qualification				In progress	This activity has already been carried out for a few years.
AM_ce ntre	-	2	E6	There should be an increase in applications from potential doctoral candidates from the nearest universities.	Faculti es	There should be an increase in applications from potential doctoral candidates from the nearest universities. The number of applications could also be increased so we can be more selective.	Creating a Doctoral School communication and dissemination plan. Creating a communication and dissemination plan establishing the most appropriate channels for achieving this.	Tailoring the proposal to demand in society				In progress	
AM_ce ntre	-	2	E2	Lack of information on the scientific results of theses	Faculti es	The results of theses are not made public.	Creating a specific section for research results on the website.	Tailoring the proposal to demand in society				In progress	
AM_ce ntre	-	3	E2	Most of the information is in three languages or only in English. In some new programmes it is also requested in Catalan and Spanish.	Progra mme	For some programmes, the information should be available in three languages. However, for some programmes it is appropriate for the information to be provided only in English.	Based on the parameters for each programme, reviewing which ones should be in English only and which ones should be provided in all three languages.	Tailoring the proposal to demand in society	Octobe r 2020			In progress	

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AM_ce ntre	-	1	E1	The technology transfer between doctoral programmes and the world of business could be improved.	Faculti es	There are very few industrial doctoral students.	Advising on the submission of proposals for industrial doctoral programmes: – Interviews with companies – Researcher advice service	Improved results from the qualification	2018-2020	Number of new industrial doctoral students per year. The goal is to consolidate the addition of two industrial doctoral students per year.	Knowledge Transfer and Research Support Office. Doctoral School.	In progress	This action is making good progress, with three new industrial doctoral students in the period comprising academic years 2017-18 and 2018-19.
AM_ce ntre	-	2	E4		Univers ity	Digital identity is a researcher's personal brand.	Building researchers' digital profiles, where work on the creation and maintenance of their profiles will be carried out in a variety of places: ORCID, Publons, Scopus, Google Scholar and ResearchGate.	Tailoring the proposal to demand in society	June 2020	Digital identity training for predoctoral research staff.		In progress	The Library holds a Library Workshop called "Where to Publish," where ORCID and Google Scholar profiles are explained. Learning resources on Publons and the synchronization of researcher profiles to be linked in the classroom will be created. In addition, the possibility of producing a dossier on digital identity and a specific researcher kit for doctoral candidates is being considered.
AM_ce ntre	-	2	E2	Currently, information about the criteria for applying for temporary or permanent leave can be found under Procedures (in the Virtual Campus) or in the Academic Regulations. This	Faculti es	We should publish information on how and when to request temporary and permanent leave on the Doctoral School website, not only in the Academic Regulations and the Virtual Campus.	Writing and publishing information on when and how to request temporary and permanent leave on the Doctoral School website.	Process standardization and efficiency	June 2021	Information published on the Doctoral School website	Programme manager	Under analysis	

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				should be more accessible.								
AM_ce ntre	-	2	E2	Including the option on the website to enable students, thesis supervisors and members of thesis examination committees to download the documents they need, so that it is all accessible to everyone.	Faculti es	Since these documents are not available in any open spaces, users without a virtual campus profile are unable to access them.	Creating a website or institutional blog showing columns by user/procedure/docu ment/deadline.	Process standardization and efficiency	June 2022	Publication of the website or blog.		Under analysis	A budget for the project has been requested from Communication, but no answer has been received.
AM_ce ntre	-	2	E2	There should be more data on defended theses.	Faculti es	The information published on defended theses should contain more information.	Completion of information on defended theses.	Tailoring the proposal to demand in society	June 2021	Publication of more information for each thesis.		In progress	The information must be updated every time a new thesis is defended. This action is therefore always ongoing.
AM_ce ntre	-	2	E2	Some parts of the information on the programmes are not on responsive websites.	Univers ity	Some information is difficult to read on some mobile devices.	Application of responsive technology to the Doctoral School website.	Tailoring the proposal to demand in society	June 2022			Pending	
AM_ce ntre	-	2	E2	Candidates are currently in contact with each other in the Welcome Classroom.	Univers ity	Communication between candidates, stakeholders, students and the scientific community should be encouraged.	Creating a doctoral community that can be accessed by both people with a doctorate and doctoral candidates so they can communicate with each other.	Tailoring the proposal to demand in society	June 2021	Creating a horizontal communication setting for the doctoral community.		Pending	This improvement has been tried on several occasions, and we can't find the right formula to carry it out.
AM_ce ntre	-	2	E4	Although the teaching staff's dedication to	Univers ity	The teaching staff's dedication to research is one	– Establishing the decrease in teaching workload.	Improved results from the qualification	2017-2020	Number of reductions in teaching	Faculty of Computer Science,	In progress	A teaching workload reduction programme for research for Faculty

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				research is appropriate, actions to increase it need to be taken.		of the keys to the quality of research and also of the doctoral programme.	– Including research activity assessment criteria.			workload per year. At least one reduction in teaching workload per year	Multimedia and Telecommunications		of Computer Science, Multimedia and Telecommunications teaching staff linked to the doctoral programme has already been implemented. There are at least six faculty members with a reduced teaching workload at the same time.
AM_centre	-	2	E2	At present, the admission process for doctoral programmes is only published on the Doctoral School website, before logging in.	Faculties	The admission process can be accessed from the website but not from within the information on each programme.	The website for each programme contains the option to apply to that programme, and this information is provided in the profile for accessing the Virtual Campus tailored to doctoral candidates, as well as in the Welcome Classroom.	This is in response to external requirements: legal requirements or requirements relating to the processes of the Framework for Verification, Monitoring, Modification and Accreditation of Official Qualifications (MVSMA)	June 2020	Adding the admission process to the online information on each programme.		Under analysis	
AM_centre	-	2	E2		Programme	The information on the general and specific competencies of each programme should be more accessible.	Specifying the general and specific competencies on the website for each programme.	Tailoring the proposal to demand in society	June 2020	Including the general and specific competencies in the information on each programme.	Programme directors	Under analysis	
AM_centre	-	2	E2	This information is currently published in the	Faculties	Students need to be able to find, in the information on	Specifying in the online information on each programme the	Process standardization and efficiency	June 2020	Adding an accurate definition of the	Programme manager	Under analysis	

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				Programme of Study Incorporation tab.		each programme, which profiles will support them.	support people (tutors) that students can rely on.			figures of the various tutors and thesis supervisors.		
AM_ce ntre	-	2	E2	This information is currently published in the doctoral candidate profile.	Faculti es	Students need to be able to find the procedures for submitting the thesis and the specializations (mentions) outside the website rather than just in the Virtual Campus.	Providing details on the doctoral thesis submission and defence process, as well as on the process for obtaining an international doctoral degree.	Process standardization and efficiency	June 2021	A detailed and published definition of the doctoral thesis submission and defence process on the Doctoral School website.		Under analysis
AM_ce ntre	-	2	E5	At present, some of the information can be found on the Doctoral School website, because it was decided that, if it were included in the programme website, there would be too much information and it would be difficult to view.	Progra mme	Students should be able to view on the website for each programme the learning resources they will have, the laboratories and the training activities and stays they will have to carry out.	Writing and publishing a text with a list of the learning resources, laboratories and training activities to be carried out in each programme.	Process standardization and efficiency	June 2021	Information published on the website for each programme.	Programme directors	Under analysis
AM_ce ntre	-	2	E2	The career opportunities arising from the doctoral programmes are not published.	Progra mme	A section on the career opportunities arising from each programme should be included in each doctoral programme's website.	Writing up the career opportunities arising from each programme and publishing this information on the website for each programme.	Tailoring the proposal to demand in society	June 2021	Information published on the website for each programme.	Programme director	Under analysis
AM_ce ntre	-	2	E2	Difficulty finding the information	Faculti es	The information required by thesis supervisors, thesis	Creating an area on the Doctoral School website with the	Process standardization and efficiency				

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				being searched for on the website		committee members, the members of the doctoral programmes' academic committees (CAD) and cohort tutors should be available.	information required by thesis supervisors, thesis committee members, CAD members and cohort tutors.						
AM_centre	-	2	E2	The admission profile for each doctoral programme does not appear on the website.	Faculties	Candidates should be able to find the expected admission profile for each programme.	The information sheet on each doctoral programme should include a description of the expected admission profile.	Tailoring the proposal to demand in society				Under analysis	There are many possibilities for improvement with the current staff but, if you add up all the hours required for each improvement, they are not possible with the available staff.
AM_centre	-	2	E2	Students should know what the Research Plan consists of.	Faculties	Doctoral candidates or interested parties may be confused about what a Research Plan consists of.	Each programme's information sheet in the Programme of Study should contain an explanation of what the Research Plan consists of.	Tailoring the proposal to demand in society	October 2020			Pending	
AM_centre	-	1	E1	We need to sustainably increase demand for admission (the current demand is satisfactory).	Faculties	No causes beyond the consolidation of the doctoral programme have been identified.	Creating a Doctoral School communication and dissemination plan. Phase 1: analysing group meetings (focus group) and channels. Phase 2: creating a communication and dissemination plan that determines the group meetings and the most appropriate	Improved results from the qualification	Phase 1: November 2017 Phase 2: December 2018	Percentage increase in demand. An estimated 10% per year is considered suitable	Doctoral School administrative staff and director of the doctoral programme	Pending	This improvement action was in progress in the accreditation of the 2018 doctoral programme. Phase 2 was completed in December 2019 with the expected results, with sustained increases in demand of about 10% per year.

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							channels for achieving this.				
AM_ce ntre	-	3	E1	The average number of publications per thesis is 0.4% (SIC data).	Faculti es	The average number of publications per thesis is 0.4% (SIC data).	Setting out the actual or planned publications in the Activity Document for assessment in the assessment report sent to students.	Improved results from the qualification	June 2021			Pending	
AM_ce ntre	-	3	E4	A small number of faculty members supervise more than four theses.	Faculti es	Some thesis supervisors supervise more than four theses.	We should analyse how many theses are supervised by each supervisor and whether they should be better distributed.	Improved results from the qualification	Novem ber 2020		Programme directors	Pending	
AM_ce ntre	-	3	E4.	The rate of satisfaction with the work carried out by thesis supervisors is less than 80%.	Faculti es	The rate of satisfaction with the work carried out by thesis supervisors is less than 80%.	We must find actions to increase doctoral candidates' satisfaction with their thesis supervisors.	Improved results from the qualification	June 2021		Programme directors	Pending	
AM_ce ntre	-	1	E1	The high percentage of part-time doctoral candidates lowers the quality indicators.	Univers ity	Full-time doctoral candidates account for a low percentage of the total.	Increasing the number of UOC-funded grants.	Improved results from the qualification	2017-2021 (coinci ding with the UOC's strategi c plan)	Number of active doctoral candidates with a UOC-funded grant. We estimate an increase of 1 to 2 more doctoral candidates with a UOC grant per year.	Director of the Doctoral School. Office of the Vice President for Strategic Planning and Research.	In progress	This action has enabled the number of UOC-funded grants to increase from 10 to 15 (split between the three doctoral programmes coordinated by the UOC). The increase in the grant budget is considered satisfactory until December 2019.
AM_ce ntre	-	1	E1	The high percentage of part-time doctoral candidates lowers	Univers ity	Full-time doctoral candidates account for a low percentage of the total.	Advising and supporting applications for FI grants.	Improved results from the qualification	2017-2021 (coinci ding with	Number of applications for FI grants made in connection with	Knowledge Transfer and Research Support Office.	In progress	It is progressing in a satisfactory manner. Two applications for FI grants for the doctoral programme were

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				the quality indicators.					the UOC's strategic plan)	the doctoral programme The aim is to have at least two applications.	Doctoral School.		submitted in 2017 and 2018.
AM_centre	-	2	E2	Only the research profiles of those researchers who have a published thesis offer are visible.	Faculties	The public information is insufficient.	Publication of the information on all the teaching staff / researchers in the doctoral programme.	This is in response to external requirements: legal requirements or requirements relating to the processes of the Framework for Verification, Monitoring, Modification and Accreditation of Official Qualifications (MVSMA)	Academic year 2020-21.	Researcher profiles visible from the doctoral programme website area.	Management of the doctoral programme in Network and Information Technologies	In progress	The academic and research staff's professional information sheets have been redesigned as part of the improvements to the UOC's R&I web areas. The new design is expected to be in place for academic year 2020-21. This action has been timed to coincide with the global technological changes being carried out at the UOC.
AM_centre	-	2	E2	It has been found that results are given insufficient publicity.	Faculties	Contributions published under the programme are not visible on the website.	Posting the best publication results on the Doctoral School website.	This is in response to external requirements: legal requirements or requirements relating to the processes of the Framework for Verification, Monitoring, Modification and Accreditation of Official Qualifications (MVSMA)	Academic year 2020-21.	Better contributions visible from the doctoral programme's website area.	Administrative staff of the doctoral programme in Network and Information Technologies	In progress	As part of improving the UOC's R&I website areas, the best scientific contributions will be visible from the Doctoral School website area in academic year 2020-21. This action has been timed to coincide with the global technological changes being carried out at the UOC.

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AM_ce ntre	-	2	E2	The public information on the indicators of certain aspects is insufficient.	Faculti es	There is no public data on some employability satisfaction indicators.	Publishing the satisfaction and employability results on the Doctoral School website. Similarly, publishing academic results.	This is in response to external requirements: legal requirements or requirements relating to the processes of the Framework for Verification, Monitoring, Modification and Accreditation of Official Qualifications (MVSMA)	Acade mic year 2020-21.	Publication on the doctoral programme website.	Planning and Quality department, and management of the doctoral programme in Network and Information Technologies	In progress	The data have been collected. The data must be displayed separately from the data for the rest of the UOC.
AM_ce ntre	-	1	E4	Although the teaching staff's dedication to research is appropriate, actions to increase it need to be taken.	Faculti es	The teaching staff's dedication to research is one of the keys to the quality of research and also of the doctoral programme.	Encouraging doctoral theses to be jointly supervised.	Improved results from the qualification	2017-2020	Number of jointly supervised theses. 75% of theses should be jointly supervised.	Faculty of Computer Science, Multimedia and Telecommunica tions	In progress	More than 65% of completed thesis were jointly supervised. The percentage for theses currently in progress is 70%.
AM_ce ntre	-	1	E4	Although the programme's teaching staff carry out research stays, this is a good activity to maintain.	Faculti es	Research stays result in better training for doctoral candidates.	Promoting and encouraging research stays abroad.	Improved results from the qualification	2017-2020	Number of research stays by teaching staff. It would be considered satisfactory if 10% of the programme's teaching staff carried out research stays each year.	Faculty of Computer Science, Multimedia and Telecommunica tions	In progress	A total of eight research stays were carried out at the Doctoral School in academic year 2018-19. One of these was in the doctoral programme in Network and Information Technologies.

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AM_ce ntre	-	3	E4	The monitoring of competency acquisition is yet to be implemented.	Faculti es	This activity still follows the traditional assessment guidelines.	Adjusting assessment guidelines	Tailoring the proposal to demand in society	June 2021	Assessing the competencies of each programme.	Programme directors	In progress
AM_ce ntre	-	3	E1	There are no data on thesis defence satisfaction.	Faculti es	There are no data on thesis defence satisfaction.	Collecting data on thesis defence satisfaction.	Process standardization and efficiency	June 2021	Carrying out a satisfaction survey that includes the thesis defence itself.		Under analysis
AM_ce ntre	-	2	E2	There should be more data on the quality of results on the portal's Data page.	Univers ity	Some doctoral data have not been published.	Publishing all doctoral data on the UOC portal's Data page.	This is in response to external requirements: legal requirements or requirements relating to the processes of the Framework for Verification, Monitoring, Modification and Accreditation of Official Qualifications (MVSMA)	June 2021			Under analysis
AM_ce ntre	-	2	E2	External assessment reports appear on the UOC's Quality website but not on the Doctoral School website.	Faculti es	If all the information concerning the doctoral programmes that is provided in the Virtual Campus and the portal is also included on the Doctoral School website, this website will	It is not appropriate.					Ruled out

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						have too much information.						
AM_ce ntre	-	2	E5	Adding a complaints and suggestions box to the Doctoral School website.	Faculti es	Providing the ability to send complaints and suggestions to the Doctoral School from a mailbox to anyone.	It is not appropriate.				Ruled out	The Doctoral School already has a mailbox to which hundreds of queries are sent. The majority of messages are closely related to the programmes but, if we add the complaints and suggestions box on the part of the website that is available to everyone, we will receive thousands of questions about any UOC matters, because other teams and faculties don't have such a mailbox. Furthermore, students already have their own communication channels within the Virtual Campus.
AM_ce ntre	-	2	E1	Online students have no access to software or technological support.	Faculti es	Online students have no access to software or technological support.	Making the same resources available to online students as to on-site students.	Improved results from the qualification			Under analysis	We should have a budget for these matters. However, the UOC has always been in favour of open-source rather than licensed software.
AM_ce ntre	-	1	E5	The need for campus technological support on what should be a doctoral classroom, with its time targets	Faculti es	The current Virtual Campus classrooms do not meet the needs of either doctoral candidates or thesis supervisors.	We need to create classrooms tailored to the needs of doctoral programmes.	Process standardization and efficiency			Pending	

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				and specific assessment and monitoring needs.								
AM_ce ntre	-	1	E6	The current management tools have become obsolete and, in addition, are not tailored to doctoral programmes.	Faculti es	The current management tools are not tailored to doctoral programmes.	GAUDÍ will have to cater for the needs/requirements of doctoral programmes.	Improved sustainability of the programme			Pending	
AM_qu alificati on		1	E2	Although the website provides details of all the steps and procedures that need to be carried out, if this were displayed in a more intuitive way, it would provide another support tool for students.	Progra mme	Doctoral candidates struggle to fully understand the necessary formalities and timing.	Developing visual diagrams that clearly show doctoral candidates the steps and processes to be followed at any given moment. Publishing it on the Doctoral School website.	Process standardization and efficiency	Acade mic year 2020- 21.	Availability of improvements to how the information on the doctoral programme is displayed.	Doctoral School director and administration team	In progress	New students accessing the doctoral programme in academic year 2010-21 will already have this documentation available to them.

Source of the proposal for improvement: (1) monitoring report from the previous year; (2) AQU assessment report; (3) current monitoring process.
Standard: (E1) Quality of the training programme; (E2) Relevance of the public information; (E3) Effectiveness of the qualification's internal quality assurance system; (E4) Suitability of the teaching staff for the training programme; (E5) Effectiveness of the learning support systems; (E6) Quality of results of the training programmes.

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