

# DOCTORAL THESIS MONITORING PROCEDURES AT THE UNIVERSITY OF GIRONA

One of the most important aspects of Royal Decree (RD) 99/2011, of 28 January 2011, governing official doctoral studies in Spain, refers to required university monitoring or evaluation of the doctoral thesis developed by each research trainee. In accordance with article 11.7 of the same Royal Decree, this annual monitoring is obligatory, although the procedure is established by each university. This document presents the procedure followed at the University of Girona (UdG) and has been approved by the Executive Committee of the Doctoral School in session 1/2011, of 9 September, and amended in sessions 2/2020 of 29 April 2020 and 4/2021 of 28 of June 2021.

The annual monitoring/evaluation will be conducted by the Academic Committee of each doctoral programme in two sessions, one at the beginning of the calendar year and another at the end of the academic year, in accordance with the academic calendar published every year. To carry out this individualised monitoring, the committee will study the following four documents: the research plan, the student activity document, the report of the research trainee and the report of the supervisor.

## ***Research plan***

In accordance with article 11.6 of the Royal Decree, before finishing the first year research trainees must submit a research plan in which they describe the methods they will use and the objectives they want to attain, as well as a timeframe for achieving them. This plan may be modified during the development of the doctoral thesis.

At the University of Girona, the research plan should follow the model provided in Annex 1 of this document. It should be submitted online via the Doctoral School application. Once submitted, it must be approved by the thesis tutor and supervisor(s).

## ***Doctoral student activity document (DAD)***

In accordance with article 2.5 of the Royal Decree, the School of Doctoral Studies must keep an individualized record of the activities of research trainees during the development of their doctoral thesis. This record will be automatically updated using the information system data available to the UdG (the GREC, currently, or whatever there is in the future). Research trainees must register all their activities in this information system. The data contained in the doctoral student activity document (DAD) are detailed in Annex 2 of this document.

### ***The report of the research trainee***

Research trainees are required to write a confidential report following the model presented in Annex 3 and to submit it online via the Doctoral School application. However, it does not need to be submitted for first-year evaluations. Only research plans will be evaluated in the first year.

### ***The report of the supervisor***

Once research trainees have submitted their report, the thesis supervisor is required to write a confidential report, and submit it online, following the model presented in Annex 4, which must be approved by any co-supervisors and by the tutor, for each research trainee under their supervision. The report should contain an assessment of the extent to which the competences listed in Annex 5 have been achieved. However, it does not have to be presented for first-year evaluations as only research plans will be evaluated in the first year.

With these reports in hand, the Academic Committee of the doctoral programme will assess whether each thesis has developed at the expected pace and issue a report. If considered appropriate, the Academic Committee may require the presence of the research trainee, the supervisor(s) or the tutor to interview them with the aim of obtaining a better idea of the development of the thesis.

With regard to the research plan, the Academic Committee will analyse the following:

1. Is the proposal innovative or relevant?
2. Is it clearly formulated?
3. Are the hypotheses or study proposals clear, verifiable and feasible?
4. Are the objectives acceptable, clear and achievable?
5. Is the methodology appropriate?
6. Does the proposal constitute enough work to develop a thesis?
7. Or, on the other hand, does it cover too broad a subject?

Regarding the monitoring, the Academic Committee will enquire about topics like those listed below. Obviously, the Committee will take into consideration that part-time research trainees have fewer opportunities to attend conferences or complete research stays in foreign countries. Likewise, first-year research trainees will not be evaluated with the same parameters as trainees from later years. It should also be remembered that different academic committees will use criteria adjusted to each specific field to evaluate the development of research trainees' theses.

1. Conference attendance.

Research trainee attendance at national or international conferences where they have presented research carried out and defended it in a paper or poster will be evaluated positively. Contact with less and more experienced researchers in the same field of specialization can be very beneficial and should be promoted.

2. Foreign, national or regional research group stays.

Stays in internationally recognized, foreign, national or regional research groups have a very positive impact on the learning of research trainees. In addition, such stays allow them to acquire advanced techniques and knowledge and to compare and contrast research carried out in their fields, and allows groups from the University of Girona to initiate or strengthen contacts with leading regional, national or international groups in their same fields of research. Stays of at least three months are highly recommended.

3. Courses and other training activities.

It is advised, especially during the first two years of doctoral study, that research trainees complete courses to improve their knowledge (for example, language courses, School of Doctoral Studies courses, summer courses in their fields and entrepreneurial courses).

4. Languages.

Emphasis must be placed on the importance of knowing foreign languages, especially English (or whichever one is most appropriate for each field of research) as the *lingua franca* of international scientific communication.

5. Group seminars.

Periodical presentations of one's research to colleagues of the group is very useful for learning communication techniques that might be important in the future professional development of research trainees.

6. Periodic meetings with supervisors.

Thesis supervisors should meet regularly with research trainees to ensure correct monitoring of the doctoral theses.

7. Research outputs.

One of the principal signs of the success of a doctoral thesis is a series of research outputs that demonstrate research capacity and autonomy. It is expected that doctoral researchers, while developing their theses, will publish at least one article or book chapter in a national or international journal of recognized prestige, or have an equivalent scientific production. It must be considered that, in certain fields, the publication of articles before the thesis defence is inconsistent with the supposed originality of the defended thesis, and therefore in these cases the non- existence of published work should not be evaluated negatively. The same may be true for a thesis whose contents are affected by a confidentiality agreement or the possibility of obtaining a patent.

8. Publishing scientific articles.

Although research groups have their own publication mechanisms, it is advisable, if appropriate, that research trainees be actively involved in publishing articles about their research or make their own contributions to collective publication efforts.

9. Other aspects the Committee considers appropriate.

As stated in the decree (Article 11.7), a favourable evaluation is required to continue in the programme. In addition, in the case of research trainees with UdG grants, a favourable report will suffice for the annual renewal of the grant. In some cases, despite the favourable evaluation, the committee may, if considered appropriate, include a list of minor problems in their online report, in the hope that research trainees and thesis supervisors and tutors will make every effort to resolve them before the next evaluation.

In case of an unfavourable, or negative, evaluation, research trainees will be re-evaluated in six months. During that time, they must develop a new research plan or monitoring report and satisfactorily meet the requirements stated by the Committee in its reasoned report. If the second evaluation is also unfavourable, the research trainee will be suspended from the programme.

In the case of serious conflict, normally associated with a negative evaluation, the procedures established by the UdG for the resolution of doctoral study conflicts will be followed.

## **Timetable**

### ***First year***

Only the research plan need be submitted.

First evaluation: January or the first half of February of the academic year in which research trainees are enrolled, in accordance with the academic calendar approved each year. The evaluation results will be available before the end of March.

Second evaluation in the case of an unfavourable first evaluation or of research trainees who were not presented in the first evaluation; before the end of June of the same year, in accordance with the academic calendar. The re-evaluation results will be available before the end of July. If favourable, research trainees will be allowed to enrol for the following year; if not, they will be suspended from the programme and will not be allowed to enrol.

### ***Second and third years (and subsequent years in the case of extensions or part-time research trainees)***

Research trainees and supervisor(s) must both submit reports.

First evaluation: January or the first half of February of the academic year in which research trainees are enrolled, in accordance with the academic calendar approved each year. The evaluation results will be available before the end of March. If favourable, research trainees may enrol for the following year; if not, they may request a second evaluation.

Second evaluation in the case of an unfavourable first evaluation or of research trainees who were not presented in the first evaluation; before the end of June of the same year, in accordance with the academic calendar. The re-evaluation results will be available before the end of July. If favourable, research trainees will be allowed to enrol for the following year; if not, they will be suspended from the programme and will not be allowed to enrol.

## Annex 1

### Research plan

Document specifying the scheduled working plan for the thesis and containing the following parts:

- 1) Title of the doctoral thesis, supervisors and line of research.  
The title should be chosen carefully. It should be as short as possible, but it should contain all the relevant information.
- 2) Summary with the description of what you want to study and how you want to do it (max. ½ page).  
Briefly indicate what will be studied, why it will be studied, with what methods the study will be done and what the expected results are.
- 3) 3) Theoretical basis and antecedents of the thesis topic. Originality and novelty of the proposal. (max. 2 pages)  
The theoretical basis must serve to contextualize the work that is to be undertaken within existing scientific knowledge. It must explain theories and studies in general that are related to the topic to be investigated and that support it. The theoretical basis must be properly referenced.  
The antecedents are all those research works carried out previously that are directly related to the topic of work of the doctoral thesis. Antecedents must be properly referenced.
- 4) Hypothesis (or hypotheses) and objective(s) (max. ½ page)  
Describe the hypothesis you want to test. The hypothesis must give a possible explanation for the phenomenon to be studied based on the observation and analysis of previous information. The validity of the hypothesis will be verified during the research process. It must be clear, precise and logical. It is important to write it explicitly. The hypothesis can also be posed in the form of a research question or questions.  
Include a concise and clear summary of the academic and non-academic objectives to be achieved during the doctoral thesis.
- 5) Methodology (max. 2 pages)  
The methodology must include and detail the methods that are proposed to achieve the objectives, relating each of the methods to the objectives set. It is necessary to describe the specific techniques that will be used in the research, not just the general approach. It is necessary to indicate the types of resources that will be consulted, methods to collect and analyze data (reproducibility), specific techniques (qualitative methods, statistical analysis, sampling...), measuring instruments and (brief) reasons for adopting these methods. Methods must be properly referenced.
- 6) Risks, if anticipated, and contingency plan (optional, max. ½ page)  
It is necessary to describe the possible difficulties that may be encountered in achieving the objectives set. Possible solutions should be noted.

## Annex 1

### 7) Data management plan (optional, max. ½ page)

On 23 May 2021, the UdG governing council approved the "UdG Institutional Open Access Mandate". This mandate requires that all data generated by UdG researchers be open access and FAIR (findable, accessible, interoperable and reusable). If data is collected in your thesis, describe how you will provide the data you collect in your doctoral thesis in open access once the thesis is completed (which repositories will be used, etc.).

### 8) Relation of your thesis with the objectives of sustainable development (max. ½ page)

The UN in its 2030 agenda lists 17 sustainable development goals (SDGs, <http://www.globalgoals.org/>). They try to make everyone's human rights a reality and achieve gender equality and the empowerment of all women and girls. They are integrated and indivisible and balance the three dimensions of sustainable development: economic, social and environmental. Reflect on how your doctoral thesis will help, directly or indirectly, to achieve some of the SDGs.

### 9) Work plan with schedule (max. 2 pages)

The work plan must specify the tasks that will be carried out to achieve the objectives set.

The schedule is a calendar (preferably in the form of a Gantt chart) for 3 years if the thesis is done full time (or 5 years if it is done part time) indicating the sequence of phases of the research and the time that will probably be needed for each phase. It must include the tasks related to the research work of the doctoral thesis, as well as its writing, submission for review, submission and defence. In addition, the training activities carried out (stays at research centres; attendance at seminars, conferences, courses, congresses or doctoral student days; oral presentations; scientific dissemination; publications in scientific journals) can be considered as tasks.

### 10) Bibliography

List of the most relevant published works for the proposed doctoral thesis.

Research plans shall be written by research trainees under the guidance of the thesis supervisors and tutors.

Research trainees who have formulated a research plan as part of an application for a grant to complete their doctoral thesis can choose to present said plan, and therefore only have to complete, of items 1-10, those that are not already described in the research plan submitted for the grant. The plan should consist of a single PDF file.

## Annex 2

### **Doctoral student activity document (DAD)**

Data extracted from the information system of the UdG to serve as an annual report for each research trainee:

1. Journal publications, as well as books or book-chapters.
2. Other publications (dossiers, booklets, notes...).
3. Research centre stays.
4. Participation in R+D projects.
5. Participation in conferences.
6. Organization of R+D activities (conferences, meetings, seminars...).
7. Other activities (training courses, etc.).
8. Lectures, colloquia, workshops...
9. Patents and utility models.
10. Other qualifications or experiences explained.



## Annex 3

### **Report of the research trainee**

Research trainees who have a doctoral thesis grant not funded by the UdG may submit, as an annual report, the same report submitted to renew the grant. The most recent grant renewal report will be considered valid, unless a new renewal report is due to be submitted within a month. In that case, research trainees will be asked to write and submit a report for the next renewal.

In all other cases, a confidential report including the following must be written:

1. With regard to the development of the thesis, a brief description of the activities carried out during the current year in accordance with the research plan. An approximate indication of the percentage of the research plan completed. The identification of any significant shifts or changes in the direction of the research. An estimation of the time needed to finish the doctoral thesis (max. 1 page).
2. A description of the monitoring activities carried out by the thesis supervisor(s) (periodic meetings with the supervisor(s), group seminars, etc.) (max. ½ page).
3. Additional comments (possible problems developing the project or personal problems with the supervisor(s) or the research group colleagues, etc.) (max. 1 page).

Grant-holding research trainees that submit a grant renewal report in place of the research trainee report can, if considered appropriate, respond to and include one or more of the three previous sections in their report.

The report should consist of a single PDF file.

## Annex 4

### The report of the supervisor

1. The evaluation of the activities carried out by the research trainee to develop his or her thesis in the last year of training is:

Very positive

Positive

Negative

Very negative

2. Indicate to what extent the research trainee has gained the competences that are appropriate to the research conducted, based on the list in Annex 5.

Excellent

Good

Sufficient

Insufficient

3. Additional comments (problems developing the project, etc.). If the evaluation is negative, this section should contain the specific reasons and indicate what the research trainee should revise to obtain a favourable evaluation in the second session.

## Annex 5

### **Competences to be achieved**

This list of personal competences, capacities and skills is established by the fifth article of Royal Decree (RD) 99/2011, of 28 January 2011, governing official doctoral studies in Spain:

- a. Systematic understanding of a field of study and mastery of the research skills and methods used in that field.
- b. Capacity to conceive, design or create, put into practice and adopt a significant process of research or creation.
- c. Capacity to contribute to expanding the limits of knowledge through original research.
- d. Capacity to critically analyse, evaluate and synthesize new and complex ideas.
- e. Capacity to communicate with the academic and scientific community, and with the society at large, about their fields of knowledge, using the typical expressions and language of the international scientific community.
- f. Capacity to promote, in academic and professional contexts, scientific, technological, social, artistic or cultural progress in a knowledge-based society.
- g. Personal development in contexts in which there is little specific information.
- h. Find the key questions that need to be answered to solve a complex problem.
- i. Design, create, develop and undertake new and innovative projects in their field of knowledge.
- j. Work, both in groups and independently, in an international or multidisciplinary context.
- k. Integrate knowledge, confront complexity and form opinions with limited information.
- l. Criticize and defend solutions intellectually.