

responsible partner:
**UMC UTRECHT**

ParticIpating partners:
**Artevelde university of applied sciences
Nottingham trent university**

**OfLA Project
2018-1-UK01-KA203-048090**

O12 – Evaluation of the final cycle of studies
Learning Analytics at the

Graduate School of Life Sciences

 Strategic Partnership: **2018-1-UK01-KA203-048090**

**Output 12 – Evaluation of the final cycle of studies (p39)**

These reports will map the process of data-informed advice in the final year of the study.

A1. We will confirm with the new study subjects how we will work alongside them. This time

however, we will have selected a new group of courses or degree programs to work with, or

will be testing a new approach to using institutional data/ learning analytics in the advising

and supporting process. This may include group tutorials, different types of alert or early warning, or advising using a particular pedagogical methodology.

A2. We will monitor and project manage the operation of the learning analytics resources.

A3. We will map how data (on each course and/or centralized) is used to firstly spot students at risk, how students are communicated to and how they are supported. Importantly, this year the reports will also include a summary of how we communicated with staff to set up the new round of interventions and challenges associated with the new cycle of interventions.

A4. We will publish the resources to the website.

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# 1. Executive Summary

The overall aim of the ‘Onwards from Learning Analytics’-project is to best understand how institutions can use learning analytics and other early warnings to improve the quality of the communication and support provided to students through staff intervention. In this third and final cycle of studies, it was investigated what alerts could be generated to identify students at risk (for delay in their studies or for relatively low grades). In this case we used progress data to identify students showing a delay in their research internship. A delay in internships is likely to result in overall study delay, which is not beneficial for the student themselves. Moreover, projects exceeding deadlines have a consequence for the total capacity of internship spots, and thereby could affect the progress of future students, because their spots are occupied for a longer period of time.

The research internships are the major element of Masters’ education in the Graduate School of Life Sciences (GSLS). Some students experience a delay in their internship either because they decide to participate in theoretical courses without notifying the university about the postponed deadline of the project or because they try to gather additional data before writing their report. However, some students may encounter a delay in their projects due to various other reasons. Especially during the COVID-19 pandemic, students seem to encounter more delay in their projects. In some cases, this is due to the research institutes closing down temporarily, but in many other cases students experience personal issues that prevent them from finishing the project in time.

Based on the information in the learning management system, we send an email to students that exceeded the deadline for their project by 3 months or more. These projects were major research project (±9 months) or minor research project or research profile project (6 months). In January 2021, we identified 109 students that were showing a delay in their project. The list with names was first shared with the academic counsellor. He could exclude the names of students that have already contacted them for help and therefore do not need to be bothered with additional stimuli to complete the project. The remaining 99 students were sent an informative survey, to make them aware that their project is overrunning and to advise them to complete the project. In the survey students are asked to indicate the main reason for their delay. In return, students are informed about the advised actions they should take for each situation and what support is available.

The response rate was 62% after sending one reminder. In total, 25 students indicated that they had finished their project, but were waiting for the examiner to grade the project, 11 students indicated that they would finish their project within a week, and 22 indicated to need more time. Of these 22 students, 11 did other educational activities in the meantime, 9 had personal reasons for a delay, 2 experienced a slower development or delay in the project. All respondents were provided with information on how to handle the situation, i.e., contact research project coordinator to request an extension of the project, contact academic counsellor for advice, or discuss with the examiner the necessary steps to complete the project as soon as possible. At least 24 students contacted the research project coordinator, and 7 other students contacted the academic counsellor in response to the survey.

# 2. Introduction

## 2.0 Institution Background

The Graduate School of Life Sciences (GSLS) in Utrecht, The Netherlands, offers graduate programs in Biosciences and Biomedical Sciences. The school offers 17 Masters’ programs that share common mandatory elements, i.e., major research project and profile project (9- and 6-months internship, respectively) for students participating in the research profile. Some students choose to participate in a profile other than research. These students attend profile specific courses and must complete a profile project. Beyond the common mandatory elements, students also attend program specific theoretical courses and general elective courses. The order in which students participate in projects and courses is different for all students. The GSLS aims to provide education tailored to the individual needs of each student, extra support for students that need it, and extra challenges for students who want it.

Each academic year, approximately 1500 students are enrolled in Masters’ education at GSLS. 25% of these students have an international background. During Master’s education students are located all over the world, which makes identification of students at risk more complicated. Learning analytics will play a vital role in enabling the GSLS to achieve the goal of tailor-made education.

## 2.1 Study delay in projects

As indicated above, the major components of Masters’ education at GSLS are the major research project and a profile project. It is common practice that students attend (theoretical) courses during their project. The GSLS asks students to include the duration of these courses when calculating the expected end date of their project. On a regular basis, students attend additional courses which they had not planned from the start. Consequentially, the deadline for completing the project needs to be adjusted and students need to inform the research project coordinator about this. It happens that students simply forget to inform the research project coordinator and exceed the intended deadline for their project. However, other students may exceed the maximal duration of their project because they encounter personal, or study related issues. When the GSLS is informed about these issues, they can offer students help and support.

In short, exceeding the maximal duration of a project with a few weeks for the right reasons is not too big of a problem. On the other hand, reasons such as gathering more data, aiming for better results, or adapting experiments due to new insights within the research group are not valid reasons to exceed the project deadline. Either way, the GSLS would like to prevent considerably larger delays. This is both for the student’s benefit and to preserve internship capacity in the GSLS. Therefore, it was decided to send an informative survey to students exceeding their project deadline. The survey aimed to make students aware that their project is overrunning and to advise them to complete the project. In the survey students are asked to indicate the main reason for their delay. In return, students are informed about the advised actions they should take for their situation and what support is available.

## 2.2 Objectives

Sending the informative survey to students that have exceeded the maximal duration of their projects had three purposes.

1) To inform the students about the procedures or actions that should be taken in order to complete their projects

2) To indicate what help/support is available in every particular situation

3) For the GSLS to gain insight in the causes for delay and learn how to prevent it in the future

## 2.3 Design of the survey

The survey was designed by the research project coordinator of Biomedical Sciences and an educational researcher. First, the research project coordinator looked into her personal archive to identify reasons for study delay in (research) projects. This list was distributed to the academic counsellor and the research project coordinator of Biosciences to complete this list with other causes for study delay known to them. The causes for study delay in projects were categorised. For each category, students will be informed about the required actions. In some cases, it is advised to contact the academic counsellor for help. In other cases, a clear procedure to resolve the issue and a remark to inform the research project coordinator are provided. The survey is attached in appendix A.

# 3. Methodology

Projects that exceeded the maximal duration with three months or more were identified using the information stored in the learning management system. This generated a list with student names and contact details, which was checked by the academic counsellor. He excluded the names and contact details of students who already reached out to him for help and students who were known to be experiencing personal issues. The remaining students were sent an online informative survey, and a reminder to this survey was send two weeks later to those students that did not respond yet. The survey was created in *Qualtrix*. Raw data were extracted from this program as an excel file. Excel was used to make graphs and to calculate means.

# 4. Results

Analysis of the learning management system identified 109 students that exceeded the maximal duration of their project; their grade was not registered in the system yet. The academic counsellor was aware of 10 of those cases. These students were excluded from the distribution list. A link to the online survey was sent via email to 99 students and 61 students completed the survey (response rate = 62%). See Figure 1 for or a schematic overview of the response.



*Figure 1. Response to delay survey. 61 (partial) responses*

From the respondents, 25 students (~43%) indicated that they already submitted their final report of the project and were waiting for the assessment (See Figure 2a). On top of that, 11 other students (~19% of the respondents) indicated to be ready for submission of their final report within a week. Importantly, 22 students (~38% of the respondents) admitted needing more time to complete their project. This last pool of students includes students that need our attention most.

*Figure 2. Response to delay survey. 2a shows primary response, 2b shows detailed response why students need more time to complete their project.*

Out of these 22 students, 11 explained they were working on other activities (not originally part of the plan/due to COVID-19 measures). Four students paused their project to complete their writing assignment, four students attended courses/workshops/training, and three students did other activities. (See Figure 2b for overview).

Two students indicated that they experienced slower development or delay in completion of the project. In addition, nine students encountered personal issues, for example health issues, housing difficulties, or activities outside academia. Three of them indicated they already contacted the academic counsellor, whereas six indicated they did not do this yet.

At least 24 students contacted the research project coordinator and they mentioned the informative survey being the trigger for this action. According to some students, the survey helped them to move forward and discuss with their examiners the final steps required for the completion of the project.

Seven other students asked for advice and counselling to the academic counsellor.

A subset of students also indicated how useful the informative survey was. Figure 3 shows student perception of usefulness of the survey. The average grade is 6.7 on a 10-point scale.



*Figure 3. Usefulness of the survey (scale 1-10).*

# 5. Summarizing conclusion

Some students exceed the maximal duration of their research or profile project. These students are supposed to inform the university (via the research project coordinator) about their delay. For some students a valid, sometimes personal, reason is causing their delay and the academic counsellor is usually familiar with these cases. However, 99 students exceeded the maximal duration by three months or more without reporting this to the university. These students were asked to complete an informative survey. Via this survey students were informed about the required actions and the university gained insight in the reasons behind the delays.

A total 61 students started the survey. These students were informed about the procedures to complete their project as soon as possible and the necessary steps to ask for an extension. Triggered by this survey, at least 24 students contacted the research project coordinator, and 7 students asked for advice to the academic counsellor. This study shows that adding information and actionable advice to a survey can be an effective method to gain information from students, and at the same time stimulate them to take action.

# 6. Recommendations

* Determine a smart but fair threshold for the identification of students based on existing policy and procedures (in this case three months’ time exceeding expected deadline of project).
* Involve support staff, i.e. academic counsellor/tutor/mentor, to determine if identified students need additional stimulus (or to exclude them from the intervention to prevent them to get overwhelmed).
* The informative survey included automated feedback and / or explanations for rules and decisions describe in policy. Providing this information makes students aware of the policy and restriction they need to consider.
* When reaching out to students that were identified to have an issue (study delay, low grades, other identified issues) provide general advice to contact support staff and include contact details of these staff members to reduce the threshold for students to do so.
* When gathering information (via a survey), send a reminder. A reminder to complete the survey after two weeks of data collection worked well.

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For further information, please contact the following people:

* Rianne Bouwmeester, Biomedical sciences, University Medical Centre Utrecht, r.a.m.bouwmeester@umcutrecht.nl
* Harold van Rijen, Biomedical sciences, University Medical Centre Utrecht, h.v.m.vanrijen@umcutrecht.nl
* Tania Morán Luengo, research project coordinator Biomedical Sciences, University Medical Centre Utrecht, t.moranluengo@umcutrecht.nl/researchprojectcoordinator@umcutrecht.nl

**Appendix A – Delay survey questions and information.**

(complete PDf in separate file)

Dear student,

According to the information in Osiris, you have exceeded the maximal duration of your

project. For some of you, there may be valid reasons such as taking additional courses or

having vacation, whereas for others there may be issues that need our attention. Regardless,

the Research Project Coordinator has not received notification of your delay. The Graduate

School of Life Sciences would appreciate if you could indicate what caused the delay that you

are experiencing in your project by answering the following questions.

1. What Master’s programme are you enrolled in? [MCQ -names 17 programmes listed]
2. What project are you working on? [MCQ]
* Major research project
* Minor research project
* Profile project
1. What is the status of your project? [MCQ]
* I have already submitted my final report and I am waiting for the assessment
* I will submit the final report in a week from now
* I need more time
1. What is the reasoning behind your delay? [MCQ]

a. I worked on other activities in the meantime (not originally part of the plan/due to Corona measures)

b. Slower development of the project than planned

c. Delay in completion of the project

d. Personal reasons (e.g. health issues, housing difficulties, activities outside academia, etc.)

e. Other reasons

4a. What additional activities are working on?

* Writing Assignment
* Courses/trainings/workshops
* Extra-holidays
* Student assistant tasks
* Other

**Info:** This are probably good reasons to have a delay in your project. However, an extension beyond

the maximal duration should be requested and registered in the system. Please, visit

the StudyGuide and follow the guidelines to request an extension.

4b. What is the struggle related to development of the project?

* Not enough data yet - My examiner/supervisor thinks that there is not enough data
* Not enough data yet - I think that there is not enough data
* Not enough data yet - My examiner and I agree there is not enough data
* I still hope to get better results
* Other

**Info: (!)** Keep in mind that: Gathering more data, better results, etc., are not valid reasons to request

an extension. Please, discuss this with your examiner/supervisor and Programme Coordinator

how to move forward for the completion of your project and visit the StudyGuide for guidelines

on requesting an extension.

4c. What is the struggle to complete the project?

* My supervisor/examiner is not available/does not respond/is too busy
* I am facing difficulties in the writing phase
* Other

**Info:** We will try to help you with that. Please, contact your Programme Coordinator and/or the

Research Project Coordinator and explain your situation in detail.

4d. Please elaborate a little.

* Personal reasons for which I have contacted the academic counselor
* Personal reasons, although I have not contacted the academic counselor yet
* Other

**Info:** We know that this has not been an easy academic year. The StudyGuide contains information

about ‘Advice and counseling’. Our Academic Counselors will be happy to talk to you and help

you as much as possible. Additionally, please visit the StudyGuide for guidelines to request an

extension.

4e. Could you elaborate about the reason behind your delay.

[open ended question]

**Info:** We will try to help you with that. Please, contact your Programme Coordinator and/or your

Research Project Coordinator and explain your situation in detail.

1. Your answers about the delay in your Research Project provides us with very useful information

to help you and other students in the GSLS. How useful has this survey been for you? [Scale 0-10]

1. In general, do you have suggestions on how the GSLS could prevent study delay for students?

[open ended question]

Thank you for providing us with additional information. Do not hesitate to contact us if you have

questions about your project. We wish you good luck with your next steps.

Best regards,

Research Project Coordinator

On behalf of the Graduate School of Life Sciences