

Interdisciplinary PhD Projects: Insights from the past 5 years

YAG Interdisciplinary Working Group

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Background

The Young Academy Groningen (YAG, established 2016) has set up an interdisciplinary PhD program. Since its start, the Board of the University has supported the YAG by providing the funds for two 4-year PhD positions (initially three bursary students) yearly. The PhD positions are specifically meant to stimulate interdisciplinary research across faculties. Each year, 2-3 PhD students start their PhD training on an interdisciplinary topic, supervised by YAG members from at least two different faculties or research institutes (e.g., Faculty of Arts – Faculty of Law, or Faculty of Medical Sciences – Faculty of Science and Engineering). For examples of these interdisciplinary PhD projects, we refer to [this webpage](#) on the [YAG website](#). The first PhD student has successfully defended their thesis in 2022. Below, we describe the current selection and procedures, and the evaluation results.

Selection and procedures

The interdisciplinary PhD positions are allocated among YAG members based on a competitive procedure. For each yearly round, all YAG members can submit a research idea for one of the available interdisciplinary PhD projects, either together with another YAG member or a non-YAG colleague. The supervisors have to work in different faculties or research institutes to ensure the interdisciplinary character of the PhD. The faculty of one of the YAG supervisors will serve as the primary host faculty for the PhD student. If the second supervisor is not a YAG member, he or she must be employed by either the University of Groningen or the University Medical Center Groningen.

All YAG members are invited to rank all submitted PhD project proposals except their own based on scientific quality and interdisciplinarity. This results in a ranking of research projects. The highest-ranking YAG PhD project proposals are selected for publication in a job advertisement on the university website. This advertisement also includes a call for students to submit their own research proposal on another interdisciplinary topic on the intersection of the fields of expertise of two or more YAG members. Prospective YAG supervisors are responsible for forming their own applicant selection process adhering to the best practices of their faculties.

Evaluation

The interdisciplinary working group of the YAG evaluated the interdisciplinary PhD projects in 2021 in a session with several YAG supervisors and in a separate session with YAG PhD students. We also conducted an anonymous survey among YAG supervisors and PhD students. In total, 17 out of 27 supervisors, and 10 out of 15 students responded to this survey. In general, all interviewed supervisors and PhD students emphasised the positive aspects of the interdisciplinary PhD projects. For many supervisors it has been a unique and refreshing experience, and it also resulted in very innovative contributions to their fields leading to international peer-reviewed publications and successful grant applications. Below, we highlight

some of the positive aspects that were mentioned but also the challenges from supervisors and students involved in interdisciplinary PhD projects.

Positive aspects

Supervisors:

- See the student integrated in two complementary disciplines
- Insights in new/other fields
- Broad perspective
- Reflecting on own field
- Learn about other faculties and how they work
- Publications in top journals
- Successful creative research and innovative grant proposals

PhD students:

- Ability to learn from different disciplines
- Work on a completely new topic
- Supportive supervisors
- Always someone to ask questions to

Challenges

Supervisors:

- Having to learn about a new field/not mastering the other field
- Having projects take place partially in two different research groups or locations
- Organisational difficulties (planning, deadlines, meetings, agreements on bench fee)
- More time-consuming than other projects because need to become familiar with a different field and increased time spent on communication within the team
- Finding a common language and others with shared interests
- Finding an PhD student with the appropriate skills

PhD students:

- Workload
- Splitting time between faculties, groups and approaches (e.g. attend meetings, presentations in both departments)
- Can feel like you do not fit in either department
- Finding others with shared interests
- Different communication / writing styles in different departments

Recommendations

In summary, from our evaluation of the interdisciplinary PhD projects in the past 5 years, the overall impression was that the positive aspects certainly outweigh the challenges. Our results encourage a continuation or even extension of the number of available interdisciplinary PhD projects. The following recommendations that could further improve the success of interdisciplinary PhD projects:

1. The supervisors should have affinity with both fields and feel comfortable in supervising their part of the project;
2. There should be weekly team meetings including both daily supervisors;
3. Sometimes the supervision team (promotors/copromotors) consists of more than two members, e.g., if other expertise is needed. The team should however not include too many (>3/4) supervisors. The entire supervision team should meet regularly with the student, at least once a month.
4. There should be an active exchange about discipline specific incentives, traditions, publication cultures etc.;
5. Expectations on the time allocation of the student in both fields should be discussed in advance and repeated regularly depending on the final evolution of the project.
6. There is a need for clear formal agreements between faculties on practicalities (budget, bench fee, promotion premium, registration etc.).