

# **Co-Supervision in Doctoral Studies: What Is It About?**

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## **Abstract**

As a part of the LTH Docent Course Spring 2024, this group project interviewed both co-supervisors and doctoral students to understand the roles of co-supervisors in doctoral studies. The study revealed significant variation in co-supervisors' roles across different projects, as confirmed by both students and co-supervisors. The research focused on co-supervisors' activities and levels of engagement, ranging from peripheral involvement to substantial contribution to the student's research and academic progress. Responsibilities typically lean towards the main supervisor, according to interviewees. Many believe that co-supervisors adapt their roles based on student needs, fostering a dynamic learning environment, and supporting both the main supervisor and student. However, the process of selecting co-supervisors and defining their activities lacks formalisation, with limited student involvement. Some suggest clarifying roles and expectations from the project's onset and maintaining ongoing discussions to prevent confusion and ensure structured meetings. Suggestions include explicit discussion of supervision roles in the Individual Study Plan (ISP) and the possibility of having two main supervisors to recognise deeply engaged co-supervisors. Overall, clearer roles and structured communication could enhance the student experience in doctoral studies.

## **1. Introduction**

Co-supervision is a collaborative approach to doctoral supervision where two or more supervisors guide and support a single doctoral student's research work and educational activities (Kálmán et al., 2022). This method has gained significance in the academic world due to its potential to enhance the quality of supervision practices, particularly in response to the challenges identified in doctoral education (Kamler & Thomson, 2014). The dissatisfaction with traditional doctoral supervision practices, as evidenced by various studies, has prompted universities to seek reforms to improve supervision quality (Park, 2005; Lee, 2008; Phillips & Johnson, 2022). Co-supervision emerges as one such reform, offering benefits such as enhanced interdisciplinarity, intersectoral collaboration, internationalisation, and overall improvement in supervision quality (Kálmán et al., 2022; Cardoso, 2024; Scheinin, 2017). With the proliferation of doctoral programs globally, finding highly qualified supervisors that meet the specific needs of doctoral studies has become a major concern for institutions, further underscoring the importance of exploring alternative supervision models like co-supervision (Ngulube, 2021).

As mentioned above, doctoral co-supervision entails a collaborative approach to guiding and mentoring doctoral students, involving two or more supervisors who collectively contribute their unique expertise and perspectives to the research and education processes (Steyn et al., 2022). Unlike traditional single-supervisor arrangements, co-supervision acknowledges the value of multiple voices and diverse competencies in supporting the doctoral student's academic journey. This collaborative model allows for a more comprehensive and dynamic supervision, where hierarchical or horizontal structures may exist for distributing power and responsibilities among the supervisors (Robertson, 2016). While hierarchical teams may provide clearer lines of authority distribution, horizontal collaboration fosters decision-making based on the doctoral student's specific learning needs. Challenges such as role perceptions and competency diversities within co-supervision teams are addressed through mutual understanding and respect among supervisors (Kálmán et al., 2022). Additionally, co-supervision serves as a security network for doctoral students, offering a supportive environment that mitigates issues and potential mismatches between students and supervisors, thereby reducing the dropout rate (Arthur, 2022). However, the effectiveness and efficiency of this security network's function has been subject to scrutiny. Despite the growing attention to co-supervision, research on its effectiveness and efficiency remains less robust as compared to traditional single-supervision models. Thus, while acknowledging the benefits and challenges of co-supervision, further exploration and refinement of this collaborative approach is warranted to enhance doctoral education practices.

Therefore, this interview-based group project, as a part of the LTH Docent Course Spring 2024, investigates the variety of roles and responsibilities of co-supervisors in doctoral studies and the decision-making processes for determining the roles and responsibilities of co-supervisors, and identifies improvement possibilities in co-supervision practices to enhance the overall quality of doctoral education.

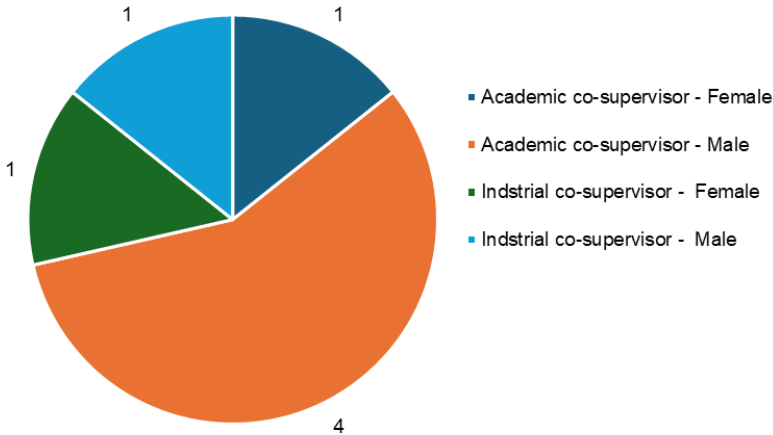
## **2. Methods**

### ***2.1. Data collection method***

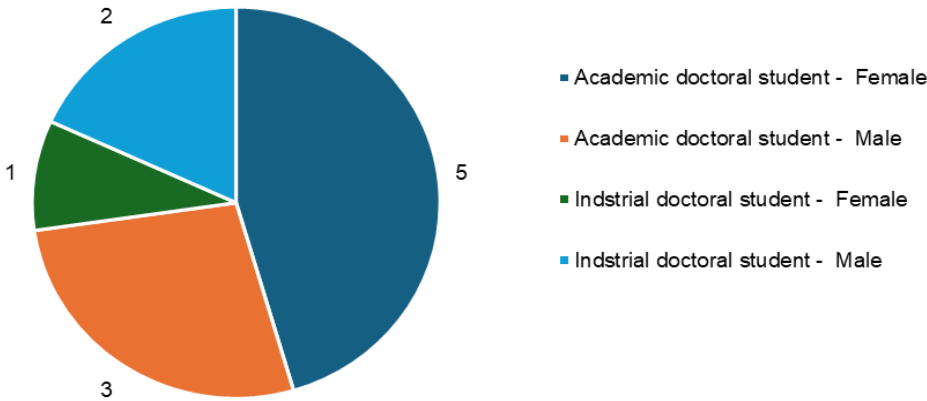
The study conducted interviews with a diverse group of interviewees, consisting of both co-supervisors and doctoral students. A total of 7 co-supervisors and 11 doctoral students participated in the interviews, encompassing individuals of both genders and from both academic and industrial/research institutes. Figures 1 and 2 present the number and distribution of the interviewed co-supervisors and doctoral students, respectively. The

interviews were conducted by different approaches (mixed method), with some being held in person and others conducted remotely via the Microsoft Teams platform.

To ensure comprehensive coverage of the targeted topics, questionnaires were meticulously prepared for the interviewees. These questionnaires were designed to elicit detailed insights into the roles and responsibilities associated with co-supervision in the context of doctoral studies. The questions were crafted with the aim of capturing all pertinent information necessary for a thorough understanding of the co-supervisory process and its implications for both the supervisors and the students involved. The interview questions prepared for the co-supervisors and the doctoral students are included in the Appendix.



**Figure 1.** Number and distribution of co-supervisors interviewed.



**Figure 2.** Number and distribution of doctoral students interviewed.

**2.2. Data analysis method**

This study employed a thematic analysis method to examine the transcripts from the interviews. Thematic analysis is a qualitative data analysis method that can be used to analyse both small and large data sets (Braun and Clarke, 2006). Thematic analysis involves identifying, analysing, and determining themes or patterns within the data set. The patterns or themes in thematic analysis can be identified in either the inductive (bottom-up) approach or deductive (top-down) approach. In an inductive approach, the themes identified are data driven and not influenced or driven by the researcher’s interest in the subject. Additionally, the specific questions given to the interviewees have no or little relation to the identified themes. On the other hand, in a deductive approach, the themes identified are heavily influenced by

researchers' interest on the topic (Braun and Clarke, 2006). In this study, the themes are well defined to cover specific aspects of the co-supervision as reflected in the prepared questionnaires, therefore, the deductive type of thematic analysis is followed. The study focuses on the following main themes:

- a. The role of the co-supervisor
- b. Co-supervisor selection and allocation of responsibilities
- c. Suggested improvements

In this study, coding of the individual responses will not be carried out; instead, the individual responses are summarised by reading through each transcript from the interviews.

### **3. Results and Analysis**

The results are presented according to the corresponding research questions and the report is divided accordingly, namely: 1) the role of the co-supervisor, 2) co-supervisor selection and allocation of responsibilities, and 3) suggested improvements.

#### ***3.1. The role of the co-supervisor***

The interview results illustrate that the role of a co-supervisor varies greatly between doctoral projects. This variation is especially visible from two perspectives: what activities are performed with the student and what is the level of engagement.

In the results, there is a clear variation in what activities the co-supervisor engages in, a view that is confirmed by both doctoral students and co-supervisors. Examples of activities from the interviews are taking part in study plan meetings, providing specialised knowledge or technical guidance, offering additional perspectives, and participating in discussions, assisting in data analysis, providing methodological advice, co-authoring publications, provide feedback on written texts, providing emotional support and relationship guidance, and engaging in thesis defence preparations, including kappa writing.

Closely related to what activities the co-supervisor engages in, the results also illustrate that there is a variety in the level of engagement of a co-supervisor; from assuming a peripheral role to being very involved in both the student's research and "academic progress". In some cases, the co-supervisor describes themselves as being "de facto" supervisor, either completely or at times. Two co-supervisors mentioned that the level of engagement is much decided according to the co-supervisor's/doctoral student's participation in the research project in question.

When it comes to distribution between main and co-supervisor(s), two interviewees described that the main supervisor has more responsibility compared to the co-supervisors.

The co-supervisors also gave their view on how they see the role of a co-supervisor. Several co-supervisors described that the role and activities engaged in differ between students based on their individual needs. One doctoral student even mentioned that this is how it should be. The co-supervisor's role is further described as creating a dynamic learning environment for the student where the student can get different perspectives, being support to both main supervisor and student, where the nature of support depends on the student and supervisory group and to contribute with expertise and foster a collaborative research environment for the students.

#### ***3.2. Co-supervisor selection and allocation of responsibilities***

In general, neither students nor co-supervisors described the process of deciding or selecting co-supervisor and/or activities of a co-supervisor to be particularly formalised or explicitly discussed. However, some interviewees mentioned that the co-supervisor involvement was set from the beginning or somewhat defined in general activities, but mainly it seems like the activities of a co-supervisor was determined by the main supervisor or through discussions in the group. Several interviewees, both co-supervisors and doctoral students, reported that the co-supervisor engagement/role was a dynamic process that evolve over time. Furthermore, related to the composition of supervisors in a group, some doctoral students described that it can be confusing to receive conflicting feedback, which might also have been related to the lack of understanding of the different roles of the supervising team.

The selection of specific co-supervisors depends on the specific case, requirements by the university, on the doctoral student's needs and whether there is a co-supervisor being placed at the same location or close proximity as the doctoral student. Some doctoral students reported having been involved in selecting the co-supervisor, whereas most doctoral students were not involved.

### **3.3. Suggested improvements**

Regarding support from the university and/or the main supervisor about the responsibilities of a co-supervisor, the co-supervisors in this study provided a mixed picture. Some did not explicitly mention what support is available, whereas others described that there is some support and yet others would want more support.

Both co-supervisors and doctoral students described that clearer description of roles would be appreciated and could improve the doctoral student's situation. Suggestions are to discuss expectations and roles at the start of the project, and also during the project. Several students also described that having more structured meetings would help in their work. There was also suggestion to include a section in the ISP where supervision and supervisor roles could be explicitly discussed. Finally, one co-supervisor described that being a co-supervisor does not usually give enough credit even if the co-supervisor is in fact doing more work than the main supervisor. The co-supervisor suggested the possibility of having two main supervisors for a single doctoral student.

## **4. Discussion**

As mentioned above, the findings in this study illustrated the diversity in co-supervisors' role and activities, and their level of engagement the student's doctoral studies. Co-supervisors are seemingly involved in all phases of a student's doctoral studies and the level of engagement varies from peripheral to "de facto" main supervisor.

The findings regarding the diversity in roles and activities or responsibilities of co-supervisors are supported by several literatures. For example, van Schalkwyk et al. (2016) believe that doctoral co-supervisors fulfil integral roles in guiding and supporting doctoral candidates throughout their research journey. Collaboratively, they provide diverse perspectives and expertise, offering complex and cross-disciplinary guidance to the candidate. Sharing tasks and responsibilities evenly, co-supervisors ensure a balanced workload management, fostering consistency and continuity in supervision (Arthur, 2022). Through ongoing feedback and reflexivity, they facilitate the candidate's continuous development, refining methodologies and addressing challenges. Moreover, co-supervision serves as a quality assurance mechanism within the doctoral school, ensuring uninterrupted support even if one supervisor departs (Roed, 2012). Accessibility and transparency are maintained, guaranteeing timely professional assistance and supervision for the candidate. Co-supervisors also facilitate increased publication opportunities and networking, extending the candidate's professional

connections and knowledge transfer (Krumsvik, 2022). Additionally, they contribute to pedagogical enhancements by fostering critical thinking, collaboration, and knowledge sharing, thereby creating a stimulating learning environment for the candidate's growth and success.

Throughout the doctoral student's journey, co-supervisors collaborate closely with the candidate, offering guidance and feedback at every turn. They contribute to refining research questions and plans during topic selection and proposal development, ensuring a robust framework for the study. In the literature review phase, their specialised insights enrich the examination of relevant scholarships (Lee, 2008). During data collection and analysis, co-supervisors provide methodological guidance and assist in troubleshooting challenges, fostering rigorous research practices. They also facilitate publication opportunities through collaboration and networking. As the candidate progresses to thesis writing, co-supervisors offer ongoing feedback and mentorship, ensuring the thesis meets high academic standards (Luca et al., 2013). Overall, co-supervisors serve as mentors and allies, supporting the candidate's academic and professional growth throughout their doctoral journey.

The process of doctoral co-supervision entails several pivotal stages, starting with the identification of potential co-supervisors, which can occur early in the program or even during the research phase (Olmos-López & Sunderland, 2017). Candidates are empowered to suggest co-supervisors who bring additional expertise and support to their projects, forming a cohesive supervisory team alongside the main advisor (Lee, 2008). This is however something that is not illustrated in this study where most of the doctoral students in this study described that they were not involved in selecting co-supervisors.

Studies highlight the importance of tailoring supervision strategies to meet individual needs, the evolving dynamics of the research process, and contextual circumstances (Masood et al. 2023). Additionally, the dynamic nature of academic research underscores the need for co-supervisors to adapt their approaches and strategies continuously (Kálmán et al., 2022). This is reflected in this study where several supervisors seem to tailor their activities and engagement according to the student's needs.

Regarding possible improvements, the findings in this study show that co-supervisors are usually not appointed through a formalised process, and neither are the distribution of activities. The role and activities are rather something that is dynamic and evolves over time. What is indicated by this study, however, is that an explicit and transparent discussion of supervisors' roles in relation to the doctoral student would improve the situation for the student.

Continuous improvement in the co-supervision process is crucial for enhancing its effectiveness and maximising the potential for student success (Grossman & Crowther, 2015). Research emphasises the direct link between the quality of the supervisor-student relationship and candidate satisfaction, completion rates, and the overall quality of doctoral education (Orellana et al., 2016). To achieve optimal outcomes, ongoing reflection, evaluation, and refinement of co-supervision practices are essential.

By fostering a culture of continuous improvement, co-supervision practices can evolve to better address the evolving challenges and opportunities inherent in the doctoral journey, ultimately leading to improved outcomes for both students and supervisors.

Last but not least, due to the very limited number of interviews that were conducted during a limited time period, the deeper causes of the diversity in co-supervisors' role and activities, the large absence of doctoral students in selecting co-supervisors and determining their roles are not analysed. However, it is crucial to understand these causes in order to take the most appropriate actions for improving the quality of doctoral supervision.

## **5. Conclusions and Recommendations**

As a part of the LTH Docent Course Spring 2024, this group project conducted interviews to map the roles of co-supervisors in doctoral studies. Both co-supervisors and doctoral students were interviewed in the study. The interview results revealed that the role of a co-supervisor varies greatly among different doctoral projects, which is a view confirmed by both the doctoral students and co-supervisors. This study investigated two main aspects, namely, the co-supervisors' activities and the level of engagement. The level of engagement of a co-supervisor could vary from assuming a peripheral role to being very involved in both the student's research and "academic progress". When looking into the distribution of responsibilities between the main and co-supervisor(s), some interviewees stated that the main supervisor has more responsibility.

Several co-supervisors' opinion is that the co-supervisor's role and level of commitment vary depending on the student's needs. It is also believed that involvement of co-supervisors creates a dynamic learning environment for the student and provides support to both the main supervisor and student, thus fostering a collaborative research environment for the student.

In general, neither students nor co-supervisors describe the process of deciding co-supervisor and/or activities of a co-supervisor to be particularly formalised or explicitly discussed. Few students reported having been involved in selecting their co-supervisor, however, most of the interviewed doctoral students were not consulted. Additionally, most of the interviewees mentioned that the co-supervisor involvement was set from the beginning and the activities of a co-supervisor were mainly determined by either the main supervisor or through discussions in the project group. Several of the interviewees revealed that the co-supervisor engagement/role was a dynamic process that evolved over time. The co-supervisors interviewed in this study provided a mixed picture regarding the support from the university or the main supervisor. Some interviewees did not know explicitly what support there is whereas others described that there is some support and yet others would want more support.

Both the co-supervisors and doctoral students agreed that clearer roles would be appreciated and could improve the student's situation. Some suggested to discuss expectations and roles at the start of the project, and continuously follow up it during the project. This may prevent students' confusion arising from conflicting feedback, as reported by a few students, which could be attributed to a misunderstanding of the various roles within the supervisory team. Several students also suggested that having more structured meetings would help in their work. According to one interviewee, having a point in the ISP where supervision and supervisor roles are explicitly discussed, could help the overall doctoral studies. The possibility of having two main supervisors was also suggested to give enough credit for co-supervisors who are, in some cases, more deeply engaged in the doctoral supervision than the main supervisor.

## References

- Arthur, P. K. (2022). *Challenges of Students under Co-Supervisors at the Department of a University in Ghana*. University of Education. Winneba: University of Education.
- Braun, V., & Clarke, V. (2006) Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3:2, 77-101, doi: 10.1191/1478088706qp063oa
- Cardoso, S. (2024). The transformation of doctoral education: responding to the needs and expectations of society and candidates. *Teaching in Higher Education*, 1-11. doi:10.1080/13562517.2024.2306255
- Grossman, E. S., & Crowther, N. J. (2015). Co-supervision in postgraduate training: Ensuring the right hand knows what the left hand is doing. *South African Journal of Science*, 111(11-12), 1-8. doi:10.17159/sajs.2015/20140305

- Kálmán, O., Horváth, L., Kardos, D., Kozma, B., Feyisa, M. B., & Rónay, Z. (2022). Review of benefits and challenges of co-supervision in doctoral education. *European Journal of Education, 57*(3), 452-468. doi:10.1111/ejed.12518
- Kamler, B., & Thomson, P. (2014). *Helping doctoral students write: Pedagogies for supervision* (2nd ed.). London: Routledge. doi:10.4324/9781315813639
- Krumsvik, R. J. (2022). Intentions and Realities in Doctoral Education in Norway. New Policies for Doctoral Education in Norway and the Implications for an Inter-Institutional Research School (WNGER II)—Some Preliminary Findings. *Frontiers in Education, 7*, 860087. doi:10.3389/educ.2022.860087
- Lee, A. (2008). How are doctoral students supervised? Concepts of doctoral research supervision. *Studies in Higher Education, 33*(3), 267-281. doi:10.1080/03075070802049202
- Luca, J., Standing, C., Adams, R., Borland, H., Erwee, R., & Jasman, A. (2013). *Developing a toolkit and framework to support new postgraduate research supervisors in emerging research areas*. Sydney: Swinburne University of Technology.
- Masood, S., Khawaja, F., & Waqar, Y. (2023). The Road to Doctoral Success: A Model for High-Quality PhD Supervision in Education. *Global Educational Studies Review, VIII*(II), 660-672. doi:0.31703/gesr.2023(VIII-II).59
- Ngulube, P. (2021). Problems of Education in the 21st Century. *Postgraduate supervision practices in education research and the creation of opportunities for knowledge sharing, 79*(2), 255-272.
- Olmos-López, P., & Sunderland, J. (2017). Doctoral supervisors' and supervisees' responses to co-supervision. *Journal of Further and Higher Education, 41*(6), 727-740. doi:10.1080/0309877X.2016.1177166
- Orellana, M. L., Darder, A., Pérez, A., & Salinas, J. (2016). Improving doctoral success by matching PhD students with supervisors. *International Journal of Doctoral Studies, 11*, 87.
- Park, C. (2005). New variant PhD: The changing nature of the doctorate in the UK. *Journal of higher education policy and management, 27*(2), 189-207. doi:10.1080/13600800500120068
- Phillips, E., & Johnson, C. (2022). *How to Get a PhD: A handbook for students and their supervisors* (7th ed.). McGraw-Hill Education.
- Robertson, M. (2016). *The power of collaboration: Team supervision of doctoral students in Education, Humanities & Social Sciences in Australia*. La Trobe University, School of Education. Bundoora: La Trobe University.
- Roed, J. (2012). *Labour of love: Emotions and identities in doctoral supervision*. University of Sussex.
- Scheinin, M. (2017). *Reforming the doctorate in the social sciences: A report on good practice*.
- Steyn, R., Frick, L., Jahn, R., Kohl, U., Mahoney Jr, W. M., Nerad, M., & Yoshida, A. (2022). Supervision in context around the world. In *Towards a Global Core Value System in Doctoral Education* (p. 82). London: UCL Press. doi:10.14324/111.9781800080188



van Schalkwyk, S. C., Murdoch-Eaton, D., Tekian, A., Van der Vleuten, C., & Cilliers, F. (2016). The supervisor's toolkit: A framework for doctoral supervision in health professions education: AMEE Guide No. 104. *Medical teacher*, 38(5), 429-442. doi:10.3109/0142159X.2016.1142517

# Appendix

Table A1. Interview questions for co-supervisors.

Category	Questions
Background questions	<ol style="list-style-type: none"> <li>1. How many doctoral students do you co-supervise?</li> <li>2. For how many years have you been a co-supervisor?</li> <li>3. Are you employed by the university, or by the industry?</li> </ol>
Introductory questions	<ol style="list-style-type: none"> <li>1. How do you see the role of a co-supervisor?</li> <li>2. What role(s) do you assume as a co-supervisor?</li> </ol>
Co-supervisors' roles from the co-supervisor's perspective	<ol style="list-style-type: none"> <li>1. What activities are you involved in with your students?</li> <li>2. Do the activities differ between students? In what way? Why do they differ?</li> <li>3. Is/was it clear what activities you would be involved in? Through job description, discussions in the supervisor group etc.</li> </ol>
How, why and who decided the different roles	<ol style="list-style-type: none"> <li>1. How were the different roles determined? / In what way were the different roles determined? / How was it decided?</li> </ol>
The supervisor group composition and distribution of activities	<ol style="list-style-type: none"> <li>1. What does the distribution of activities (/responsibilities/roles) between the main supervisor and co-supervisor(s) look like?</li> <li>2. If you are more than one co-supervisor, what does the distribution of activities (/responsibilities/roles) look like?</li> </ol>
Support needed, challenges and possible improvements. The student needs from supervisors	<ol style="list-style-type: none"> <li>1. What support do you have from the university and/or the main supervisor about the responsibilities of a co-supervisor?</li> <li>2. What challenges do you face as a co-supervisor?</li> <li>3. In your view, what would improve your situation as a co-supervisor?</li> </ol>

Table A2. Interview questions for doctoral students.

Category	Questions
Background questions	<ol style="list-style-type: none"> <li>1.How far are you in the doctoral studies?</li> <li>2.Are you an industrial or academic doctoral student?</li> <li>3.How many co-supervisors do you have?</li> </ol>
Co-supervisors' roles from the student's perspective	<ol style="list-style-type: none"> <li>1.What activities do your co-supervisor(s) involve in?</li> <li>2.Do the activities differ between co-supervisors? In what way? Why do they differ?</li> <li>3.Has it been clear what activities the co-supervisors would be involved in? Through job description, discussions within the supervisor group etc.</li> </ol>
How, why and who decided the different roles	<ol style="list-style-type: none"> <li>1.How were the different roles determined? / In what way were the different roles determined? / How was it decided? / Did you have any influence over the decision?</li> </ol>
The supervisor group composition and distribution of activities	<ol style="list-style-type: none"> <li>1.What does the distribution of activities (/responsibilities/roles) between the main supervisor and co-supervisor(s) look like?</li> <li>2.If there are more than one co-supervisor, what does the distribution of activities (/responsibilities/roles) look like?</li> </ol>
Support needed, challenges and possible improvements. The student needs from supervisors	<ol style="list-style-type: none"> <li>1.How do you handle the composition of supervisors? When they have different opinions, if there are conflicts between the supervisors etc?</li> <li>2.In your view, what would improve your situation as a student to influence the quality of your education by having appropriate supervisors?</li> </ol>