

Gaps and Overlaps in Supervisory Responsibilities: A Case Study of Bachelor's and Master's Students' Thesis Writing in Two Departments

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Abstract

This article focuses on how supervisors and students perceive their responsibilities at the beginning of the thesis writing process. Students in general do little research writing before beginning their Bachelor's or Master's programs and they often find academic writing to be a complicated task, which means that many do not complete their thesis writing within the stipulated time. A survey was conducted at the Department of Computer and Systems Sciences (DSV) and the Department of Child and Youth Studies (BUV) at Stockholm University, Sweden. In addition to the distribution of responsibility, participants ranked the importance of four issues: the student's own collected data in the thesis; language, layout, and correct referencing; the thesis as an excellent product; and the student's development of his or her competence. In general, students and supervisors agreed on the distribution of responsibilities between them and the importance of some of the issues. The opinions were coherent, considering the survey was conducted early in the thesis writing period. It is suggested that future research includes an in-depth investigation of cultural differences between departments.

Introduction

This study focuses on how supervisors and students perceive their responsibilities at the beginning of the thesis writing process. The research is motivated by the significance of supervision in the writing process of Bachelor's and Master's students. Most Bachelor's and Master's programs are completed with a written thesis project, which can be described as a research project that students undertake more or less independently. Students may do little research writing before they start their Bachelor's or Master's programs and they often find academic writing to be a complicated task, which means that many do not complete their thesis writing within the stipulated time. In general, the throughput for the thesis courses among Swedish universities is low (Woolhouse 2010; de Kleijn et al. 2014). There are various reasons for this, but writing is a known barrier for individuals aspiring to obtain a Master's degree, and writing anxiety is one part of the problem (Huerta et al. 2017). The writing task is complicated and a challenge for many students, but also for the supervisors. There is an ambivalence among lecturers about how to support the writing aspect during a program in their role as a supervisor (French 2011). The novel form of the task required of the students, in addition to the anxiety frequently caused by academic writing, makes the blend of writing support and the general supportive relationship between student and supervisor particularly important. This blend of supervision involves complex interactions between students and supervisors. A

mismatch in either party's perception of their responsibilities may lead to poor outcomes, as well as poor experiences during the process. Therefore, this study addresses the knowledge gap of students' and supervisors' perceptions of the responsibilities in the thesis writing process.

Mismatches related to the student's study orientation and harmful power relationships can be detrimental to successful collaboration (Dysthe, Samara, and Westrheim 2006). The relationship and necessary cooperation between supervisor and student has been viewed as being like a marriage, where both parties must agree on how to work together: 'It is the responsibility of both the student and the supervisor to work on it and trust each other' (Mhunpiew 2013: 120). In addition, the supervisor/student relationship may change throughout the thesis writing period (Todd, Smith, and Bannister 2006). A mismatch in styles, such as when students in need of help meet a supervisor with a tendency towards what Taylor and Beasley (2005) characterize as 'benign neglect' in supervision, may be harmful, especially at certain critical periods in the writing process.

There are similarities in thesis supervising relationships at the Bachelor's and Master's level, as well as at the Ph.D. level, even if the latter is a more extended process and has a more complex relationship. Undergraduate projects typically involve fewer issues of personal development and academic enculturation than Ph.D. projects. Nevertheless, they include powerful relationships, as well as other issues regarding roles and responsibilities between supervisor and student. Therefore, supervision of students at the undergraduate and Ph.D. levels shares many common attributes (de Kleijn et al. 2014, Dysthe, Samara, and Westrheim 2006, Lee and Murray 2013, Pilcher 2011). The focus in the current study is, however, on the Bachelor's and Master's level, as well as the respective theory and references for academic writing during a program, and writing the required piece of text for a Bachelor's or Master's degree.

Furthermore, the internationalization of higher education and the increased popularity of Master's programs in both English and non-English speaking countries highlight the importance of language and cultural aspects for both teachers and students (Filippou, Kallo, and Mikkilä-Erdmann 2017; Leibowitz 2013). A likely combination is a teacher, supervisor, and student, all writing in English, but who are all non-native English speakers. In addition, Filippou, Kallo, and Mikkilä-Erdman (2017) found that international students had higher expectations of their supervisors than native students. Harwood and Petrić ask, 'How do international master's dissertation students and their supervisors experience supervision?' (2017: 1) in their study of the social sciences and humanities departments of four UK universities. They introduce their findings as 'uplifting, depressing – even shocking' (2017: 1) and provide examples of how important supervision is, including the students' understanding of the feedback they receive.

Different cultures in the academic disciplines influence the conditions for students not writing in their native language. As academic writing should be integrated and supported in subject studies, supervisors' support of writing should be an integrated part of the supervision overall. Furthermore, supervision is also heterogeneous and dependent on institutional and disciplinary influences (Dysthe 2002, Holmberg 2007). Holmberg found that the criteria regarding the contribution to science varied considerably among supervisors within a single discipline, stating that '[a] main reason for this seems to be the lack of a common theoretical frame of reference' (2007: 215). This can be considered the case even in more general terms in all educational levels. French states, when investigating the development of first year undergraduates' writing, there is a lack of consistency in the requirements for students' 'appropriate academic style of writing' (2011: 232). 'Due to a lack of communication, possible problems related to different perceptions of understanding the writing task may remain hidden or at least be neglected and underestimated' (Holmberg 2007: 207).

French argues that institutions should support lecturers to 'develop their own academic writing identities in higher education, as well as supporting them to work more effectively as writing developers within their subject specialisms, or collaboratively with specialist writing development staff' (2011: 228). Accordingly, the possibility of adapting to students' needs and developing students' writing increases if the supervisor is skilled as an academic writing

developer. Academic writing should be an important and supported activity for the student during their time at the university. Students do benefit from a holistic and embedded approach to writing development (French 2011: 228). The subtle relation of writing and learning is elaborated by Ivanič (2004). This may be of increasing importance when the number of international students increases.

Consequently, this study aimed to investigate how supervisors and students perceive their responsibilities in the supervisory activity in the Bachelor- and Master-level thesis writing process. The results from the Department of Computer and Systems Sciences (DSV) and the Department of Child and Youth Studies (BUV) at Stockholm University were compared to obtain knowledge and understanding of any interdisciplinary similarities and differences. This kind of analysis can lead to better collaboration between the supervisor and the student, and in turn, to a higher quality of written thesis work.

Background

Writing a thesis is a complex task

Thesis work is a form of tertiary school assessment to which students are typically unaccustomed, and is often perceived as the culmination of an undergraduate program (Greenbank and Penketh 2009, Todd, Smith, and Bannister 2006). Students are required to conduct independent research and to demonstrate that they are capable and worthy of a Master's degree (de Kleijn et al. 2012, Nygaard 2017). The work involved in thesis writing is significant, and often requires the development of new skills such as autonomous learning. The student must adopt the role of researcher, a task that is new for them, and for which time is limited to complete an in-depth piece of work. 'Students easily fall into a role of learned helplessness,' writes Dysthe (2002: 520). They may suffer from a lack of understanding of a new situation, and often require support.

Students in one of the two departments in this study face a common challenge (Eriksson and Carlsson 2013) of combining communication skills with subject skills. If they are used to writing short technical reports, the requirements to write about theory and other sections in a thesis can be overwhelming for the individual student. The need for writing support varies individually, and the supervisor must be informed about possible difficulties students may encounter in learning academic writing and during their transition from newcomers to the new role (Armstrong and Shanker 1983, French 2011).

Supervising writing is a complex task

Supervision is essential for the student's transition from a dependent to a self-directed learner (McGinty, Koo, and Saeidi 2010, Todd, Smith and Bannister 2006). Students require support to build self-confidence (Anderson, Day, and McLaughlin 2006). A study by de Kleijn et al. (2014) compares several characteristics of thesis supervision to coursework and finds that the supervision process is more cyclical than linear, because the same writing re-occurs in meetings. Unlike most coursework, neither the student nor the supervisor knows the final results of the work being discussed. Furthermore, in coursework, interactions occur mainly at a classroom level between one instructor and many students, while in a research setting interactions are mainly based on written documents and one-on-one, although there are occasional examples of one instructor supervising groups of students (Dysthe, Samara, and Westheim 2006).

de Kleijn et al. (2012) consider that the supervisor's task – to both support the student in the learning process, and assess the end, written result – is complex, as too much of either creates problems (Anderson, Day, and McLaughlin 2008). Additionally, Pilcher, who interviewed 31 mathematics and computer science supervisors, explains that '[the] UK Masters dissertation is an "elusive chameleon" that changes appearance around a number of "cores", and changes over time' (2011: 37). Vehviläinen and Löfström (2016) offer a similar explanation when describing supervision as the balancing act between intervention and allowing students to find their writing by themselves.

Meanwhile, Dysthe (2002) categorizes supervision into three models: The *Teaching model*, the *Partnership model*, and the *Apprenticeship model*. The student sees the supervisor as an authority in the *Teaching model*, in which the supervisor's role is to correct the student's ideas and text, and which is the traditional form of instruction. Dysthe describes a tendency for the supervisor to take ownership of the text. The *Partnership model* is characterized by dialogue and constructive criticism of the handed-in documents and letting the student control their project and text. This also means that the end product is seen as a joint project. The textual practice in the *Apprenticeship model* is different from the former models. Dysthe describes this model as a collaboration with feedback from multiple sources – not from a single supervisor. This last model clearly suggests that the student is there to learn. Although Dysthe recognizes various models of supervision, in the view of the aforementioned literature such conceptions of supervision do not seem to be explicitly implemented. Perhaps the idea of supervision is not to select either model, but understand that each of them has their merit at different stages of the writing and supervision process. Communicating this notion for a student might also be too a difficult task for some supervisors as their knowledge and experiences differ (Vehviläinen and Lofström 2016).

Variations in supervisory styles

Thesis supervision styles vary between different supervisors and different students, depending on their levels of background knowledge and experience (Tapia Carlín 2013, Vehviläinen and Lofström 2016). Among supervisors, a lack of confidence in their own abilities may further complicate the relationship, while their criteria for supervision style may be primarily based on individual ideas and interpretation (Fossøy and Haara 2016). One additional challenge is that students may perceive thesis writing not only as a difficult task, but also as a useless and tedious one (Tapia Carlín 2013: 80).

However, even as more students move outside their own institutions to conduct their studies, few studies have compared supervision in different departments. In general, academic disciplines differ in curricular focus, research style, and traditions, and the attributes of individual fields influence the way departments define their work (Becher and Trowler 2001, Todd, Smith, and Bannister 2006). Cultural differences between institutions also mean there are different ways of organizing thesis work (Becher and Trowler 2001, Dysthe 2002, Lea and Street 1998). Students may expect the supervisor to adopt a parental role since the personal contact between them may, for some students, be their only contact with the university. This may be especially true for international students unfamiliar with the new academic setting (Chan and Drover 1997, Todd, Smith, and Bannister 2006, Brown 2007). Furthermore, "student handbooks" – literally and figuratively – provide advice to both parties on how the thesis writing process should be implemented (Anderson, Day, and McLaughlin 2006, Todd, Smith, and Bannister, 2006, Dysthe 2002). Such a handbook may assist a student who is not familiar with the culture, since the cited literature suggests that understanding the thesis process includes understanding the style of the supervisor and the institution.

Expected roles and responsibilities

The expectations of supervisors and supervised students can be vastly different (Harwood and Petrić 2017), and Anderson, Day, and McLaughlin (2008) provide examples of some expectations, such as seeing supervisors as having a very active part to play in the writing process. They note that, 'It was expected that a style of supervision would be provided which gave students a distinct feeling of support without intruding upon, or detracting from, their own sense of agency' (Anderson, Day, and McLaughlin 2008: 44). They compare this result to Dysthe's (1999) study, which finds that students expect writing suggestions and advice instead of directions. Ismail, Abiddin and Hassan argue that 'the supervisor must be diligent about explicitly working with students to establish mutual expectations, responsibilities and benefits for working together' as 'problems can be minimized or prevented if all the participants in the relationship strive to enter it with clear expectations for their respective roles' (2011: 82).

The relationship becomes more complicated when issues involving different cultural backgrounds and language barriers are involved. In a survey conducted by McGinty, Koo, and Saeidi (2010), 330 students, mainly from Australia, but also from Malaysia and Iran, participated

and expressed their views on supervisors and their responsibilities, roles, and cultural knowledge. One-third of the respondents were pursuing Master's degrees and the rest were Ph.D. candidates. Despite the different levels of study, the students had similar beliefs regarding cultural knowledge and the roles expected in the thesis writing development (McGinty, Koo, and Saeidi 2010). The supervisors' views were not collected or compared.

Expected distributions of responsibilities

Several studies have been conducted mapping the distribution of responsibilities between supervisor and student in the thesis process (Filippou, Kallio, and Mikkilä-Erdman 2017, McGinty, Koo, and Saeidi 2010, McMichael 1992, Mhunpiew 2013, Ross et al. 2011, Woolhouse 2002, 2010). Depending on which of Dysthe's models (2002) or other expectations of the process the supervisor and student have in mind, supervision of the writing process is expected to proceed according to certain guidelines. Although students and supervisors may not have formal knowledge of these models, they may hold different implicit assumptions about what their respective roles entail. These attitudes regarding distribution of responsibility can be communicated between the parties: 'Both supervisor and student should accept responsibility for negotiating their joint progress' (McMichael 1992: 310). The relationship and responsibility must be mutual, and it is recommended that the parties initially draw up a contract with the rules for the writing project. As noted by Wisker, 'Indicating responsibility along a grid is one way among ample recommendations [for] how to plan the supervising process' (2008: 160-1), which can be performed by using a scale ranging from student to supervisor. Mhunpiew uses a five-point scale to investigate the distribution of responsibilities (Mhunpiew 2013: 121). Her study contains limited information, but the main finding is that the supervisors' practices and the students' expectations coincided in terms of guiding with structure, making the students feel confident, and agreeing and setting goals together.

We see the common framework that outlines explicit expectations for both student and supervisor as an important measure in this context and of increasing interest in how to improve supervision procedures in thesis writing. However, it is acknowledged that very little empirical research, on how supervision is offered and implemented, has been conducted (Dysthe and Samara 2006, Fossøy and Haara 2016). Harwood and Petrić (2017) claim that there is more research on Ph.D supervision than Master's supervision, and Anderson, Day, and McLaughlin expect more attention for Master's students in research literature due to the proliferation of Master's courses: 'The dissertation process in particular has not been investigated extensively' (2008: 33). Furthermore, goals in a Master's thesis are rarely investigated despite their importance (de Kleijn et al. 2016). Moreover, most studies are small-scale interviews and descriptive in nature (e.g., Anderson, Day, and McLaughlin 2006, 2008, Armitage 2008, de Kleijn et al. 2012, Greenbank and Penketh 2009, McMichael 1992, Mhunpiew 2013, Todd, Smith, and Bannister 2006).

Although the aforementioned studies provide insights into roles and expectations, it remains unclear how supervisors and students perceive the responsibilities at the beginning of the thesis writing process. To address this gap, the present study investigated how the supervisors and students at DSV and BUV of the Faculty of Social Sciences at Stockholm University perceived the distribution of responsibilities regarding the supervisory activities of the thesis writing process.

Method

Formal thesis requirements vary between institutions, although universities retain a legal framework and a body of rules and requirements. While a similar framework typically exists for undergraduate thesis work, it may differ between departments and within disciplines. All Bachelor's and Master's degrees in Sweden require students to produce an independently written document reporting the results of an empirical work in their main field of study. The quantitative approach was chosen to provide an overview of how supervisors and students perceived their responsibilities in the writing process. The present survey was conducted during the introductory weeks of this period of work at the DSV and BUV at Stockholm University.

Settings

The terms 'thesis' and 'dissertation' are used differently in different educational contexts (Evans, Gruba, and Zobel 2011). In Sweden and some other countries, the term 'thesis' is mainly used for Bachelor's and Master's academic levels, while 'dissertation' is used for the doctoral degree. Thesis writing is the final part of Bachelor's and Master's degrees in the Swedish setting (UKÄ 2017). Requirements for independent work and critical reflection are higher for Master's theses, but the structure of the work and the types of challenges confronted are similar across both levels.

As noted, this study was conducted at the DSV and BUV at Stockholm University, Sweden. Both departments belong to the University's Faculty of Social Sciences, requiring them to follow the same body of regulations. As Stockholm University's oldest department providing education in information technology, the DSV's activities are organized around principles of the social sciences and of information and communication technologies. As such, during the thesis course, students have to write theoretical and empirical theses as well as technical reports. The other department in this study, the BUV, provides education and research that considers children and young people within the following overlapping contexts: culture, family, preschool and school, peer groups, media and leisure, the community, the economy, and with respect to national and international law. BUV students have to write theoretical and empirical theses during the thesis course.

These two departments were chosen due to their overall common framework - Systems of Qualifications - as well as the fact they belong to the same faculty but have different orientations, local rules, and writing traditions, which made them ideal comparative subjects given this study's topic. The number of respondents from each department corresponds to the number of thesis writing projects in each department. Respondents included 45 supervisors, 226 Bachelor's (88) and Master's (138) students from the DSV, as well as 12 supervisors and 61 Bachelor's students from the BUV. Complementary interviews could have resulted in greater insight into respondents' thoughts about roles and distribution of responsibilities, but a larger cohort and more general result was prioritized in this phase. The number of respondents comprises a reasonably representative subset of the larger group, although any generalizations must be made with caution.

The survey was conducted in paper and pen form and as a web form reminder during the students' first week of the thesis writing period. Fourteen issues were examined and the questions were chosen from an existing survey used in teachers' professional development at Stockholm University. Individual students who attended the introductory meetings, when the surveys were distributed, had the option to decide not to answer the questions. The response rate was 80 per cent.

Students and supervisors alike were asked to indicate the distribution of responsibility in the supervisory relationship on a scale, with the student's responsibility on one end and the supervisor's responsibility on the other. In the six sections of presentation of results (Tables 1-6, below), equal responsibility is represented as zero, with the supervisor's responsibility on the negative (left) side and the student's responsibility on the positive (right) side of the mid-line. Supervisors and students also rated the importance of four statements on a scale of 1-5, provided as a complement in the first and last sections. This data was standardized to make comparisons easier.

Effect size was used to measure the strength of differences between the categories. The effect size indicates the standardized mean difference between the students' and supervisors' opinions, respectively. The mean difference was divided by the standard deviation, with a higher value in the tables below indicating a stronger effect. How a given effect size should be interpreted depends on its substantive context and its operational definition, but an effect size of 0.5 or greater is typically considered to be a high value.

The effect size in this study was calculated by using *Cohen's d*, which is defined as the difference between two means divided by a standard deviation for the data.

$$d = \frac{\bar{x}_1 - \bar{x}_2}{s}$$

Effect sizes can be useful, but like other statistics, they should be interpreted with caution. The statements that the students and supervisors were asked to consider are presented in bold letters in the results section below.

The results are divided into six sections concerning the distribution of responsibility in the student-supervisor relationship. They include: selecting the topic and collection of data; theoretical framework; organizing the process; enculturation; emotional support; and the product. Results from supervisors and students from both departments are presented in each section, with the bold text corresponding to each topic.

The tables reflect respondents' indications on the survey scales. The left end of the scale represents the supervisors' (T) full responsibility (-2.0) and the right end represents the students' (S) full responsibility (+2.0). The scale in between represents a gradual distribution of responsibility; equal distribution is represented by the numerical value '0' in the tables. If the two categories indicate a similar position on the scale, both parties agree on the distribution of responsibility. The effect sizes for the difference between supervisors and students of the departments, respectively, are indicated in the tables, including the scale value including one decimal -2.0 to +2.0.

Results

There is an overlapping responsibility if the supervisors' responsibility is at a position to the left of the students, which indicates that they have more responsibility compared to the students. The students, on the other hand, indicate that they have more responsibility than the supervisors. Accordingly, when the supervisors' position is to the right of the students' position, there is a gap in the distribution of responsibility. In other words, the students expect the supervisors to take more responsibility than the supervisors believe they should.

In addition to the distribution of responsibility, participants also ranked the importance of four issues: students' own collected data in the thesis (Table 1); language, layout and correct referencing (Table 6); the thesis as an excellent product (Table 6); and the student's development of his or her competence (Table 6). The scale used in the survey ranged from 'not important' (1) to 'very important' (5). Means and effect sizes are indicated in the tables.

Selecting the topic and collection of data

In Table 1, **Selection of the student's research/development topic**, the students and supervisors largely agreed on the appropriate distribution of responsibility (DSV supervisors 0.5 and DSV students 0.6). Additionally, BUJ students expected themselves (1.6) to select the research/development topic to a greater extent than their supervisors (1.2). This is an example of a responsibility overlap, as both categories believe they have more responsibility compared to their counterparts.

Supervisors and students in the DSV believed that responsibility is more equally distributed, compared to those at the BUJ. BUJ students' indication of their own greater responsibility for topic selection represented the response most inclined toward students' responsibility - and the least responsibility for the supervisors - in this survey.

Table 1. Selection of topic and collection of data

SELECT THE TOPIC AND COLLECT DATA				T	S		
Selection of the student's research/development topic				Supervisor's opinion	Student's opinion	Effect size	Comments
DSV	 Supervisor responsibility Equal responsibility Student responsibility			0,5	0,6	0,2	Match
BUV	 Supervisor responsibility Equal responsibility Student responsibility			1,2	1,6	0,4	Overlap

How important is: Students own collected data in the thesis.				T	S	Effect size
				Supervisor's opinion	Student's opinion	
DSV				2,7	2,9	0,2
BUV				3,7	3,5	0,1

The results also suggest a difference between the two departments regarding the importance of **Student's own collected data in the thesis**. Both supervisors and students at the BUV indicated this as important (3.7 and 3.5 respectively, Table 1), while this was less true in the DSV (2.7 and 2.9). A substantial effect size (1.3) was found for the differences between supervisors in the DSV and the BUV, while differences between the students of the two departments had a lesser, but still considerable, effect size of 0.5. Effect sizes for the difference between supervisors and students of the respective departments, as indicated in Table 1, were negligible (0.2 and 0.1).

Establishing the theoretical framework

DSV students and supervisors had relatively similar opinions regarding the distribution of responsibility to **Establish the theoretical framework for the thesis**, with a slight predominance of the students' responsibility (0.3, Table 2). In the BUV, students and supervisors were less likely to agree; supervisors indicated 0.1 and students 0.5, which suggests an overlap in responsibility. As with the first question - selecting a topic - the BUV students were more likely than the DSV students to believe that establishing a theoretical framework was their own responsibility.

Table 2. Theoretical framework

THEORETICAL FRAMEWORK				T	S	Effect size	
Establish the theoretical framework for the thesis				Supervisor's opinion	Student's opinion		
DSV	 Supervisor responsibility Equal responsibility Student responsibility			0,3	0,3	0,0	Match
BUV	 Supervisor responsibility Equal responsibility Student responsibility			0,1	0,5	0,5	Overlap

Identifying a background reading or study for the student				T	S	Effect size	
				Supervisor's opinion	Student's opinion		
DSV	 Supervisor responsibility Equal responsibility Student responsibility			0,3	0,5	0,1	Overlap
BUV	 Supervisor responsibility Equal responsibility Student responsibility			0,1	0,3	0,2	Gap

Providing resources that will support the student's findings				T	S	Effect size	
				Supervisor's opinion	Student's opinion		
DSV	 Supervisor responsibility Equal responsibility Student responsibility			0,4	0	0,4	Gap
BUV	 Supervisor responsibility Equal responsibility Student responsibility			-0,7	-0,5	0,2	Overlap

There was a slight predominance in the DSV students' responses regarding responsibility for **Identifying a background reading or study for the student** (Table 2). Both parties, students and supervisors, largely agreed on the distribution, although students placed a bit more emphasis on the issue (0.5) than supervisors (0.3). Results were similar in the BUV, although there was a small responsibility gap in the students' (0.3) and supervisors' (0.1) perceptions of responsibility distribution. This difference produced a small effect size of 0.2, and must be therefore interpreted with caution, as with all small differences found in the survey.

The responses for **Providing resources that will support the student's findings** were equally distributed among DSV students (0.0, Table 2). However, there is a gap due to the supervisors' indication of more responsibility for the students (0.4), which is caused by the Master's students in the DSV. The Bachelor's students indicated a result more in line with the supervisors. At the BUV, both supervisors and students indicated more supervisory responsibility for this issue than their counterparts in the DSV. The BUV supervisors indicated -0.7 and the students -0.5, denoting an overlap of responsibility.

Organizing the process

Regarding **Developing a schedule for completion of tasks that the student will undertake during the degree**, students in both departments found the distribution of responsibility almost equal (0.1 and 0.0), Table 3. DSV supervisors indicated a somewhat larger responsibility (0.3) for the students in this issue than BUV supervisors (-0.3).

DSV supervisors and students agreed with regards to the distribution of responsibility for **Organizing regular meetings between student and supervisor**, with supervisors' responsibility predominating (-0.4, Table 3). Supervisors at the BUV also believed this to be largely their own responsibility (-1.5). To some degree, BUV students agreed with that belief (-0.9), which means there is a responsibility overlap.

Table 3. The process

ORGANIZING THE PROCESS				T	S	Effect size	Comments
Developing a schedule for completion of tasks that the student will undertake during the degree				Supervisor's opinion	Student's opinion		
DSV				0,3	0,1	0,2	Gap
BUV				-0,3	0,0	0,3	Overlap
Organizing regular meetings between student and supervisor				T	S	Effect size	Comments
DSV				-0,4	-0,4		
BUV				-1,5	-0,9	0,6	Overlap
Ensuring that the student's process is on track and on schedule				T	S	Effect size	Comments
DSV				0,1	-0,4		
BUV				-1,0	-0,7	0,2	Overlap

The largest responsibility gap was found between students and supervisors in the DSV concerning **Ensuring that the student's process is on track and on schedule**. The

supervisors indicated 0.1, while the students indicated -0.4 (Table 3). Both parties at the BUV agreed that there was more responsibility for the supervisors in this area compared to the DSV respondents, meaning there is an overlap instead of a gap. Supervisors indicated more supervisory responsibility (-1.0) than students (-0.7).

Supporting enculturation

The students at the DSV assigned greater responsibility to supervisors for **Making the students aware of facilities and resources in the department and university** (-1.1) than their supervisors (-0.8), Table 4. This is a small gap in the distribution of responsibility, and it is mainly the Master's students who contribute to this gap. The Bachelor's students' responses were more similar to their supervisors'. Both supervisors and students in the BUV indicated the opposite relationship: supervisors accepted nearly all the responsibility for this area of the thesis relationship (-1.7). The students largely agreed (-1.3) and thus, instead of a gap, there is an overlap of indicated responsibilities at the BUV.

Certain similarities exist between the former issue and the next concerning responsibility for **Developing a network of fellow students or staff for the student**. BUV supervisors (-0.4) and students (-0.5) indicated more responsibility for the supervisors than the DSV group (Table 4). DSV supervisors indicated equally distributed responsibility (0) and the students (-0.3). Therefore, there is a small responsibility gap, primarily on the part of the Master's students, who expect supervisors to bear more responsibility.

Table 4. Enculturation

		ENCULTURATION										T	S	Effect size	Comments	
		Making the students aware of facilities and resources in the department and university										Supervisor's opinion	Student's opinion			
DSV											S	T	-0,8	-1,1	0,3	Gap
		Supervisor responsibility			Equal responsibility				Student responsibility							
BUV		T									S	-1,7	-1,3	0,4	Overlap	
		Developing a network of fellow students or staff for the student														
DSV											S	T	0,0	-0,3	0,3	Gap
		Supervisor responsibility			Equal responsibility				Student responsibility							
BUV											T	S	-0,4	-0,5	0,0	Match

Providing emotional support

The importance of **Providing emotional support and encouragement to the student** is largely a task for supervisors, although DSV students felt that the responsibility was also their own (-0.7, Table 5). The DSV supervisors indicated that they have greater responsibility compared to the students' views (-1.1). BUV supervisors and students agreed on the distribution of the responsibility as both parties indicated the highest value in the survey for the supervisor responsibility (-1.6).

Participants in both the DSV and BUV indicated a nearly equal distribution of responsibility for **Maintaining an effective working relationship between supervisor and student**. There is a slight distribution toward the supervisors' responsibility (-0.4 and -0.3, respectively) compared to the students' (-0.1, indicated by both student categories in Table 5).

Table 5. Emotional support

		EMOTIONAL SUPPORT			T	S	Effect size	Comments
		Providing emotional support and encouragement to the student			Supervisor's opinion	Student's opinion		
DSV					-1,1	-0,7	0,4	Overlap
BUV					-1,6	-1,6	0,0	Match
		Maintaining an effective working relationship between supervisor and student						
DSV					-0,4	-0,1	0,5	Gap
BUV					-0,3	-0,1	0,3	Overlap

Prioritizing the text/product

All four categories in this field of responsibility indicated that **Ensuring that the thesis will be of an acceptable standard when examined** is more the responsibility of the supervisor than the student. The responsibility is overlapping for both departments (Table 6). Supervisors and students at the DSV indicated -1.2 and -0.7 respectively, while BUV supervisors indicated -1.0 and students -0.8.

Language, layout, and correct referencing seem to be more important at BUV than at DSV, Table 6. The students at BUV designated slightly more importance to it (3.6) than the supervisors (3.4). Students and supervisors at DSV indicated an equal level of importance (2.8) on the '1-to-5' scale.

Table 6. The product

		THE PRODUCT – (ASSESSMENT)			T	S	Effect size	Comments
		Ensuring that the thesis will be of an acceptable standard when examined			Supervisor's opinion	Student's opinion		
DSV					-1,2	-0,7	0,5	Overlap
BUV					-1,0	-0,8	0,2	Overlap
		How important: Language, layout and correct referencing			T	S	Effect size	
					Supervisor's opinion	Student's opinion		
DSV					2,8	2,8	0,0	
BUV					3,4	3,6	0,2	
		How important: The thesis as an excellent product			T	S	Effect size	
					Supervisor's opinion	Student's opinion		
DSV					2,6	3,0	0,3	
BUV					3,0	3,4	0,4	
		How important: The student's development of his or her competence			T	S	Effect size	
					Supervisor's opinion	Student's opinion		
DSV					2,7	2,9	0,1	
BUV					3,7	3,5	0,1	

The thesis as an excellent product was, in both departments, highlighted more by the students (3.0 and 3.4) compared to their supervisors (2.6 and 3.0, Table 6). The effect size for the difference between supervisors and students was in the medium range – 0.3 for DSV and 0.4 for BUV – while the differences between the student indications measured by effect size was 0.5.

The supervisors and students in their respective departments indicated **the student's development of his or her competence** with corresponding importance. The supervisors and students at the DSV respectively indicated 2.7 and 2.9 (Table 6), while the supervisors and students at the BUV indicated 3.7 and 3.5.

Summarized results and discussion

In general, students and supervisors agree on the distribution of responsibilities between them and the importance of some of the issues. The opinions are surprisingly coherent considering the survey was conducted early in the thesis writing period. This coherence implies that any gaps and overlaps are not extensive in either of the two departments included in the study.

Dysthe's (2002) description of the relationship between supervisors and students includes the *Teaching model*, the *Partnership model*, and the *Apprenticeship model*. The *Partnership model* seems to be the closest in relation to the various specific responsibilities used in this study. It is easy to think of the corresponding answers from the supervisors and students as a joint writing project which includes dialogue between the parties. As Dysthe notes, 'The contractual nature of cooperation is emphasized' (2002: 519).

We believe it is possible to interpret the overlaps as signaling the ambition of good management and relationships between students and supervisors: 'The symmetry is not symmetry of knowledge or experience. It has to do more with the task of the thesis being a joint responsibility and the contractual nature of the cooperation between the teacher and the student' (Dysthe 2002: 520). de Kleijn et al. (2012) argue that the supporting and caring role is an important part of a successful relationship, even if the proportion varies. This especially appears to be the case at the BUV. Our tentative hypothesis is that the more expected caring role is due to the department's less technical and more relationship-based theory and practice.

The issue with the highest ratio of student responsibility is the 'Selection of the student's research/development topic'. The BUV students considered this as being their responsibility, and their supervisors mostly agreed. This issue was also indicated as being more important when compared to the students and supervisors at the DSV. This result, and the BUV respondents designating more importance to the 'Student's own collected data in the thesis' than their DSV counterparts, can be related to the different scientific disciplines. The research at the DSV is cross-disciplinary and includes analysis, design and development work. The main focus can be on aspects other than collecting data. Depending on what a student is interested in, the writing and thesis outcome will be different. The research at the Department of Child and Youth Studies uses various methods, but these are not perceived to be as broad as those at the DSV. The methods used are often surveys and different kinds of cases, hence the data collection aspect will be important. The results are in line with, e.g., Filippou, Kallo, and Mikkilä-Erdman's findings in Finland (2017) where the students wanted to be able to address both the topic and theoretical framework, but with their supervisors' support. They also report that the students from social sciences emphasize the students' responsibility more than the students from technical and natural sciences. This is in line with the current study, if we consider DSV to be an information technology department.

Furthermore, the four categories surveyed show participants agreed on relatively equal responsibilities for the 'Establishing a theoretical framework', with exception for the issue 'Providing resources that will support the student's findings', where both students and supervisors indicated more of a supervisor responsibility. This appears to be in line with a more supportive role for the BUV supervisors, which becomes more explicit in another area, 'Organizing the process.' In this section, the BUV respondents indicated a predominant responsibility for the supervisor. A similar BUV opinion existed for 'Making the students aware of facilities and resources at the department and university.' There are quite similar overall opinions on the process, even if the indications from the DSV do not emphasize the supervisor's responsibility to the same extent. This result is in line with McGinty, Koo, and Saeidi's (2010) findings that students and supervisors have similar ideas about the process. These issues are also what Anderson, Day, and McLaughlin (2006, 2008) describe as joint interactive work to

come up with a practicable research design where the students are not expected to work alone, wherein the commonalities were much more evident than the differences: 'Throughout the whole process of the dissertation, supervisors described themselves as guiding and supporting students to take an analytical, critical stance towards the literature, and to have confidence in their own interpretative voice' (Anderson, Day, and McLaughlin 2006: 161).

There are predominant overlaps between the BUV supervisors' and students' responsibilities. The overlaps in responsibility also apply at the DSV, except for 'Providing resources that will support the student's findings.' The small gap in this responsibility may be a result of the implementation of a support system at DSV. The objectives of the implementation of the system are to provide resources to the students about theories and methods, as well as timelines for showing structure and delivering written sections. The writing process is scaffolded by the instructions, peer review process, and plagiarism check, all of which are integrated into the system. The system may, therefore, be perceived as a "third party" which has "responsibility" for the writing process. This view makes more sense when we also consider that two out of three issues in 'Organizing the process' have gaps in the DSV. Regardless, the system is barely implemented, and its influence is uncertain. One interesting aspect of the DSV gaps is that they are mainly created by the Master's students. Compared to the Master's students, the Bachelor's students at the DSV and their supervisors agree to a larger extent upon the distribution of responsibilities. This may not be surprising since writing a Master's thesis is a more comprehensive task and the students put more responsibility upon the supervisors, which generates the gaps. Further studies are needed to clarify this result.

The students at both DSV and BUV believe that the thesis, as a product, is more important (effect sizes of 0.3 and 0.4) compared to their supervisors, while the supervisors consider that the development of the students' competence is more important. The difference is small, however, and is indicated by a similarly small effect size of 0.1 and 0.2. This result can be interpreted in different ways. Supervisors have a responsibility to the wider academic society (Anderson, Day, and McLaughlin 2006) and the individual student who needs to pass, but the product needs to be of a certain quality. At the same time, the overall aim of a Master's program is to develop the student's competence. This double aim may contribute to the formation of both the interpersonal supporting role and the directing intellectual role (McGinty, Koo and Saeidi 2010, de Kleijn et al. 2014).

Although this study shows a general agreement between students and supervisors on the distribution of responsibilities, many students still do not complete their thesis writing within the stipulated time. In general, the throughput for the thesis courses among Swedish universities is low. There are various reasons for this. A supervisor's 'gut reaction' (Woolhouse 2010) may play a significant role in the success and failure in thesis supervision and writing. A supervisor needs to adapt to the student's needs, which means they must be flexible and responsive. The relationship between a supervisor and their student seems important for the success of supervising and thesis writing (de Kleijn et al. 2014). This includes not only agreement on responsibilities, but also on giving feedback the student can understand and that fits their learning behavior.

Another factor for success in thesis writing may be the supervisor time allocated by the institution for each student. A student may feel they get too little support because the supervisor has a limited number of hours of instruction devoted to them. A student may also find it difficult to understand the instructions or where to find information.

Even if the expectation of the distribution of responsibilities does not significantly differ in the current study, the students and supervisors' interpretations and expectations in individual cases may cause mutual disappointments (McMichael 1992). Armstrong and Shanker give an example of a student that 'deliberately chose a supervisor who had the reputation with students of being fairly disinterested in supervising students closely' (Armstrong and Shanker 1983: 179). This illustrates the complexity of the thesis writing project and the supervising task and the issues are becoming more relevant as the number of international students increases.

The results of this study provide greater evidence for the importance of investigating both students' and supervisors' perspectives in order to understand expected roles and responsibilities of both parties. If this is done in the initial phase (Filippou, Kallo, and Mikkilä-Erdman 2017) and communicated to the research community, it can contribute to an increased quality of the supervisory process and the finished product. Furthermore, this communication should preferably be iterative during the process (Anderson, Day, and McLaughlin 2008). In collaboration with departments, i.e., making use of standardized support systems and advice books for guidance, one must take the differences of academic writing skills into account.

Limitations

Although the results of the current study provide insights into the perceived distribution of responsibilities in supervision, it is important to know its limitations. The students in the starting phase of their writing projects may interpret the survey topics and concepts differently compared to us, the researchers. Furthermore, the possibility of drawing conclusions and comparing the two departments is limited as the two groups of respondents' understanding of the topics may be systematically biased. In addition, the theory and discussion in this article are drawn almost entirely from research and practice in Anglo-Saxon countries; its relevance may therefore be limited to similar contexts.

The current study does not discriminate on responsibilities and activities, such as student colloquia and methods of supervision in groups (Dysthe, Samara, and Westrheim 2006), nor does it make use of peer activities in the writing process. These questions are not explicitly included in the study, but we have assumed that the answers were influenced by the perceptions and expectations of different group activities.

Further research

Numbers indicated in a survey may correspond to participants' expectations, but not to their actual behavior. As Lee and Murray note, 'There is evidence that, whilst Ph.D. supervisors claim they are not "proof readers," they spend a considerable of time just doing that' (2015: 559). This may also be true for undergraduate supervision. What, then, is the difference between the *ambition* to supervise the writing process (i.e., including external experts, general feedback, and proof reading) and the *actual activities accomplished*?

The focus on the initial expectations of each party's responsibilities, with comparisons drawn between supervisors and students, and students and departments, has produced results that raise new questions. To fulfil the requirements of the national quality assurance system, more emphasis has been placed upon the final product – the text itself. Meanwhile, various systems have been developed not only to support the student's writing process, but also to facilitate communication between student and supervisor (Karunaratne, Hansson, and Aghaee 2017). In its simplest form, the systems consist of aids such as checklists and criteria for distinct parts of the thesis. More advanced support systems also include matching between supervisors and students with respect to their areas of expertise and suggested writing. Peer work can be promoted, and resources that support the distinct phases of the writing process built into the system. The guidelines for supervision potentially contribute to the maintenance of traditional thesis-writing processes, with less discussion of epistemic concerns (McGinty, Koo, and Saeidi 2010). Further studies will investigate how support systems influence the process and whether a system can be described as a "response-taking entity". Future research will also include an in-depth investigation of cultural differences between departments, to determine whether students and supervisors have opportunities to develop their academic writing identities during their time in higher education, and furthermore in what way different specialists, guide books, and support systems have been utilized.

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