

## More than just talk

Exploring how supervisors through structured activities can support peer learning in project groups at a PPL-university

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# More than 'just talk'

Exploring how supervisors through structured activities can support peer learning in project groups at a PPL-university

**Certificate of University Teaching and Learning**

**Project Report**

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## **Abstract**

The present project emerged from our personal interest in providing better and more diverse supervision for project groups at Roskilde University. Supervision usually takes the form of a dialogue at supervisor meetings, and we wanted to explore activities that can supplement the dialogue-based supervision. As supervisors we often experience fragmented and individualized projects and want to investigate how to improve collaboration and common understanding in project groups. Group work has a great potential for peer learning but this potential may not be realized without proper facilitation (David Boud, 2001). In this project we design an activity - a presentation 'seminar' - where students present and discuss relevant literature. The activity was tested on three project groups that we currently supervise. We found that the activity improved the learning of subject matter, helped secure coherency in the projects, and in general helped the groups progress. However, in one project group the outcomes were limited and discussions superficial which we ascribe to an unguided choice and preparation of the literature they presented in the activity. This points to the need of careful preparation and scaffolding from the supervisor, when initiating activities.

## **Chapter 1: Introduction and problem field**

*“... normally each student gets responsible for specific cases without really understanding much about the other parts of the project...”* (Chemistry student, Roskilde University)

This quote from a master student working in a project group at Roskilde University pinpoints the problem investigated in this report; that group members too often end up working very individually resulting in a fragmented project where the benefits of collaborative work is not realized. We take the supervisor's perspective and try to understand how supervisors – through activities - can help project groups work better together and improve their collective understanding of central concepts in their projects. To better understand the context of group work, let us look at the characteristics of supervision at Roskilde University (RUC).

### ***Supervision at Roskilde University***

Problem-oriented project work in groups is a central part of the bachelor and master programs at RUC and constitutes approximately 50% of the formal learning activities. The pedagogical principles of the project work are laid out in the so-called Roskilde Model, or PPL (Problem-oriented project learning) (Andersen & Heilesen, 2015). PPL-projects are participant-directed studies of a scientific problem and mimics “real” academic research in the sense that students themselves identify and define a scientific problem, decides how to investigate the problem, and conducts the scientific work that leads to an answer to the problem. Students typically work on a project in groups for a period of one semester throughout which they receive supervision from an academic employee at the university. The role of the supervisor may vary significantly between projects, but the supervisor typically assists the students in defining the problem, help them choose the relevant scientific methods, and in general provides feedback regarding the work process and the product. The different practices and preferences of supervisors can be divided into types that are intertwined in actual supervision: process-focused (including group dynamics), product-focused, assessment-focused (Tofteskov, 1996; Ulriksen, 2014) and ‘ad hoc’-focused (occurring issues, personal as academic), (Bitsch Olsen & Pedersen, 2008; Skov, 2013).

The supervisor is allocated a number of working hours for the supervision duty but how and when these hours are spent is more or less up to the supervisor and the project group. This said, it is

common across the university to have midway-seminars and similar ‘milestones’ that the supervisor and group attend to give feedback on other groups’ projects. Despite project work being such an important part of the education at Roskilde University, there are no overall university guidelines on how to supervise project groups (to our knowledge). Local guidelines may be found at the departmental levels or at even more local levels, but as far as we know there are only few examples of such<sup>1</sup>. Research also suggests that even though collective or local guidelines exist, the actual supervision praxis is still very differentiated and individual (Leth Andersen & Wirefeldt Jensen, 2007: 11). The supervision process and the supervision activities are therefore very dependent on the individual supervisor and may vary significantly among supervisors and between projects. While the lack of rules and guidelines allows for a large degree of freedom, the supervisor may also lack inspiration on how to supervise and the quality and form of the supervision may vary a lot.

### ***Privatized supervision culture***

Another characteristic of supervision at RUC is that it seems to be a ‘black box’ – something private between the supervisor and the group that is rarely discussed openly. So, how do supervisors supervise? And what determines how they supervise? We speculate that most supervisors base their supervision practice on their own experiences as supervisors but maybe also on their own experiences as students being supervised. That is, the supervision is based on a kind of tacit knowledge rather than an explicitly stated pedagogical rationale. This notion is also backed up by a research project by Andersen and Jensen, where they on a basis of several interviews with supervisors argue that supervision is too private and that more sharing is needed to make explicit what is considered ‘good praxis’ at both local and institutional levels (Leth Andersen & Wirefeldt Jensen, 2007: 118-119). The same point was also made clear in the 2007 third issue of *The Journal of Danish University Education (DUT)* with the title “Supervision – from tacit knowledge and privatized culture to openness and institutionalization”<sup>2</sup>. The need for shared discussions on supervision and guidelines seems to be evident.

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<sup>1</sup> The former Institute ‘CUID’ (Institute of Culture and Identity) at RUC had a document called “The good supervisor” (Den gode vejleder) setting guidelines for good supervision practice at the institute-level just as one of the HumBach-‘houses’ also used common guidelines given by the House Coordinator called “Supervision in house 46.2” (Vejledning i 46.2).

<sup>2</sup> Danish title: “Vejledning – udvikling af vejledning fra tavs viden og privatpraktiserende kultur til italesættelse og institutionalisering”, *Dansk Universitetspædagogisk Tidsskrift (DUT)*, 3, 2007

### ***Is supervision ‘just talk’?***

The seemingly closed culture of supervision adds to make it unclear what are the professional aspects of supervision – what kind of knowledge, competencies and tools should a supervisor possess and develop? This adds to a notion of supervision sessions often being ‘just talk’. We are not trying to neglect the importance of different kinds of talk in a group, but our understanding of ‘just talk’ is when supervision practice becomes ad hoc, unplanned, implicit and unstructured. So, how could more structured and planned activities be looked into?

As new teachers/supervisors in Academia we often feel a need for an overview of supervision activities and their underlying pedagogical principles, which is not easy to find in the available literature. It is our belief that the quality of supervision may be improved if the supervisors have a research-based catalogue of supervision activities at hand, from which they can draw inspiration and find suitable supervision activities for specific situations and problems. Making a catalogue does not ensure that supervisors make perfect choices or conduct ‘good supervision’, but we see it as a starting point for collecting, discussing and sharing knowledge on supervision practices and thereby gaining inspiration for individual and collective supervision. In this project, instead of designing a full catalogue, we will develop a single activity. We want to go deeper than collecting examples of activities from the literature, as we want to test the activity in our own praxis to gain experience and insights on using a structured activity in supervision. One could say that this project aspires to make the first contribution to an ongoing catalogue of practice-research-based activities for supervision.

Activities could have many purposes and forms, but in this project, we will focus on activities that assist *peer learning*, which is the informal and formal learning that happens when students work together. Group work is more prevalent at Roskilde University compared to most other universities and this provides a unique potential for pursuing the benefits of peer learning (See Skov 2013 p. 2 and Boud 2001 p. 8-9 for benefits of peer work). Peer learning does not naturally happen when students work in a group and we know from experience that group work can be very individualized, demotivating and challenging. Therefore, the task to support peer learning in project groups is no small one and we follow the insights of David Boud, who underlines that peer learning processes needs to be promoted and managed (David Boud, 2001: 10). Thus, group work gives the potential

for fruitful learning among peers and to make full use of this potential the supervisor can initiate activities which then hopefully help to enhance peer learning<sup>3</sup>.

This leads to the formulation of our problem.

## **Problem formulation:**

*How can activities initiated by the supervisor support peer learning in project groups?*

## **Strategy for exploring the problem**

The first step is to design an activity that can support peer learning. For this purpose, we are drawing on relevant literature and our own experience to develop a framework for an activity that – in theory – supports peer learning processes in groups. We believe that focusing on one activity will help us obtain general competencies and knowledge in constructing and tailoring supervision activities – knowledge that the reader of this report can use in their own teaching and supervising praxis. Two of us had the opportunity to test the activity in our practice during the fall semester 2017. Consequently, we carried out the activity with three groups; two groups did it without the supervisor whereas the second did it as part of a supervisor meeting. The rationales and reflections on our method is discussed in a later chapter.

In the next sections the main concept of peer learning is elaborated followed by a chapter concerning the design of the activity, considerations when doing so and finally we evaluate the activity and reflect on what can be learned for supervision practices at a PPL-university.

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<sup>3</sup> While peer learning serves pedagogical goals, it can also partially relieve the supervisor of certain tasks such as securing textual and scientific quality in the written product. This relief becomes increasingly relevant in the current situation where supervision time is gradually being cut as a part of a move to make universities – teaching and research - more 'efficient' (Leth Andersen & Wirefeldt Jensen, 2007).



## **Chapter 2: Literature and concepts**

### **Literature on supervision in a PPL-context**

For the project, we have done a preliminary literature search of which we will outline the main points.

It is not swarming with literature on supervision at the university level and especially not in a PPL-context with group work. Dysthe et al. in a Norwegian study argue that most literature on supervision concerns individual supervision (as opposed to group work) and Ph.D.-supervision focusing on the teacher-student relationship (one to one) (Dysthe, Samara, & Westrheim, 2006). Also, most of the literature we have come across concerns thesis writing which is predominantly an individual endeavor (even at group work universities like RUC). Another point to be made about the supervision literature comes from Andersen and Jensen who suggest in their book on thesis supervision that there seems to be a lack of scientific literature in the field of supervision, which in their opinion is dominated by personal accounts and political texts (Leth Andersen & Wirefeldt Jensen, 2007: 10). This point is backed up by Wichmann-Hansen, Eika, & Mørcke (2007) who did a literature review to try and find empirical (here meaning ‘evidence-based’) publications on supervision as opposed to purely theoretical and personal, experience-based publications. The authors found that the field was dominated by interview-studies with supervisors and students and had a descriptive character not dealing with what could or should be done. Following these findings, they call for more didactical, systematic and methodological studies on supervision although at the same time noting that supervision per default is idiosyncratic and finding a ‘best way to do it’ might not be possible (Wichmann-Hansen, Eika & Mørcke 2007: 17).

Relatively new publications on supervision in a Danish context is found in the two voluminous books “University Teaching and Learning” (English version from 2015, in Danish in 2013) by Rienecker, Jørgensen, Dolin, & Ingerslev 2015 and “God undervisning på de videregående uddannelser”<sup>4</sup> (2014) by Lars Ulriksen. Both works touch upon supervision, also in a PPL-context with group work. For the same reason, these books take a central place in our project as knowledge

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<sup>4</sup>“Good teaching in higher education”

sources. As mentioned in the introduction the Journal of Danish University Education did an issue on supervision in their 3<sup>rd</sup> 2007-issue, which contains relevant articles as well.

Concerning more local, RUC-specific resources on supervision we have come across a very praxis-oriented article by Signe Skov (2013) in the former Journal “SPOR”, which existed from 2013-2014 and was edited by RUC’s department for university development (‘UniPæd’). Even though Skov’s article is about thesis-writing we are still able to use some of her points and advice about supervision practice at RUC. Two other resources from the specific RUC-context are “The Roskilde Model: Problem-oriented Learning and Project Work” by Andersen and Heilesen (2015) and “Problem-oriented Project Work – A Workbook” (2008) by Olsen and Pedersen. The first serves as a good text for explaining the background of the pedagogical model at RUC, where the latter is much more hands on and gives concrete advice on supervision among other things.

## **Peer learning**

Peer learning is a central concept in this CUTL-project, but it is not a well-defined concept and many variations of the concept is found in the literature. In our understanding of the term we draw mainly on the book “Peer learning in higher education – learning from and with each other “ by David Boud (ed.) (2001). In the first part of this chapter the meaning of peer learning is examined followed by the learning theoretical arguments for peer learning. Then the challenges and difficulties of peer learning are discussed along with considerations of how to facilitate efficient peer learning. Finally, project work at RUC is discussed in relation to peer learning.

### ***What is peer learning and what is the rationale behind it?***

As the name suggests, peer learning is about peers learning from each other. “Peers” refers to persons who are in a similar learning situation and on the same level with respect to status. Thus, there is no ‘teacher’ or pupil in peer learning. In the words of Boud they “*do not have power over each other by virtue of their position or responsibilities*” (David Boud, 2001: 4). In contrast, peer teaching or peer tutoring, may involve an experienced student who are given the task of teaching less experienced students. In that case, the experienced student assumes the role of a teacher and learning is one-directional: from teacher to student. In a peer learning situation all involved persons are learners and they simultaneously “*learn from and with each other*” (ibid.). As if to emphasize this point Boud extends the name to “*reciprocal peer learning*” (ibid.).

At this point, it is important to note the existence of different related concepts in the pedagogical literature. Peer learning is sometimes used as an overall concept which comprises peer tutoring, cooperative learning and peer collaboration. These concepts differ by the level of equality and by the level of mutuality in the dialogues they foster among peers (Damon & Phelps, 1989).

Collaborative learning is highest in both equality and the degree of mutuality, and it is clear that the above-mentioned description of peer learning, which is based on Boud, is more or less synonymous with collaborative learning, but the project we choose mainly to use the term ‘peer learning’.

The arguments for peer learning depend on the learning theoretical perspective. From a cognitive perspective the interactions between peers result in a better processing of information. In this sense learning means that new information needs to be encoded and organized into schemas, information needs to be rehearsed, and it needs to be retrieved. Discussion of subject matter among peers benefits each of these cognitive processes. When peers discuss subject matter, they are forced to

critically reflect on their understanding of theories and concepts and they are forced to argue for their understanding, thereby improving their understanding and achieving a deeper learning. There are other learning theoretical arguments for peer learning but there are also a number of arguments for peer learning that are not related to the learning of subject matter but to the learning of various skills. Sampson and Cohen (Sampson & Cohen, 2001: 30) list a number of skills categorized as “Generic learning outcomes”, that is, outcomes that are not subject-specific but are of a more general nature. These include interpersonal communication skills, negotiation skills, teamwork and presentation skills. Here, learning how to learn from peers becomes a goal in itself (ibid.). These generic skills are not only useful while studying at an university, they are also increasingly being demanded by employers (David Boud, 2001: 5-6).

We find it useful to distinguish between learning of subject matter and learning of skills. Many of the abovementioned skills are more or less natural outcomes of peer learning activities, whether or not the peer learning activity was designed to foster these skills (see also David Boud 2001 p. 8-9 for desired outcomes of peer learning). But in addition to being a desirable outcome, these skills may also be regarded as being a prerequisite for efficient peer learning. Good communication and social skills, for example, seems to be a prerequisite for a productive discussion among peers and therefore a prerequisite for reaping the cognitive benefits of peer learning. We label these skills “cooperative skills” and regard them as being an equally important outcome of peer learning activities as the learning of subject matter.

Further arguments for peer learning are of a more practical nature: As teacher resources are cut, more efficient teaching methods are needed. When peers learn from each other fewer teacher resources are required. Finally, it should also be mentioned that the use of peer learning can provide “social and emotional support” for students (Angela M. O’Donnell & Hmelo-Silver, 2013: 3).

### ***How to facilitate peer learning***

Peer learning may be formal or informal. Informal peer learning always takes place to some extent when students discuss their courses and homework with each other. However, there seems to be a large learning potential in formalizing peer learning, and the realization of this potential depends on the design of formalized peer learning activities (David Boud, 2001; Cohen & Sampson, 2001).

Asking the students to form small groups and work on some given task may not be sufficient – peer learning activities should be carefully designed, and the students should be introduced to the

activity in a proper way. Thus, there are many considerations to be made before introducing a peer learning activity.

As for any other learning activity, the activity should support the Intended Learning Outcomes (ILOs). What makes peer learning different from many other activities is the role of the teacher. In ordinary classroom lecturing the teacher is foregrounded but in peer learning the students are foregrounded while the teacher is backgrounded. This does not mean that what the teacher does becomes less important, it just means that the teacher works in another way. In peer learning the role of the teacher is to “*construct and maintain high-quality learning environments*” (David Boud, 2001: 175). This means that the teacher should carefully design the activity, instruct and motivate the students for the activity, and intervene when necessary (ibid.).

There are many challenges to consider that are specific to peer learning. First of all, students who are used to learning from a teacher may find it difficult to learn from their peers due to skepticism of the value and quality of what is learned (Sampson & Cohen, 2001: 25). Students may also be reluctant to engage in group work because it is logistically complicated, they have experiences with negative group dynamics and interpersonal conflicts, the occurrence of free-riders in the group etc. (Cohen & Sampson, 2001: 62-64). To try and address these problems supervisors can use certain strategies.

### *Creating positive interdependence*

Collaboration within a group can be improved by creating positive interdependence between the group members. This means that the group’s performance depends on the performance of each individual; the group can only perform well if each student does well. By creating positive interdependence the group members are encouraged to cooperate and to help each other learn (Angela M. O’Donnell & Hmelo-Silver, 2013: 4). The motivation used to create positive interdependence can be reward-based, often in the form of a grade, or it can be based on student’s caring for each other and wishing each other to succeed (ibid.).

### *Extent of structure in the activity*

Another important consideration is to what extent and detail the activity should be pre-structured by the teacher. From a cognitive perspective the activity should stimulate scientific discussions among

peers in which they articulate their own understanding of subject matter and critically listen to their peers' explanations and arguments, thereby creating a deep understanding of concepts. But such discussions may not come about by themselves, they may need to be stimulated, and this is one important reason why the extent of structure should be considered (King, 2007). External structuring, or scaffolding, of the activity can be more or less detailed, ranging from "form groups and discuss topic A" to detailed and timed instructions on how the peers should interact. Examples of the latter are sometimes referred to as "scripted collaboration" or "scripted cooperation" and could specify that Person A should explain a text to Person B who should then provide feedback followed by a common discussion of the text (King, 2007; A. M O'Donnell & Dansereau, 1992). While scripted collaboration may bring about peer interaction at the levels that are necessary for deep learning there are also certain risks that may counter the intentions (Dillenbourg, 2002). One is the increased cognitive load associated with understanding and executing the script. Other risks are linked to the way the script disturbs the natural interaction and communication between the peers. If the script is too "tight" it may limit or even prevent rather than stimulate the intended discussions (ibid.).

### *Regulating the complexity of the task*

The cognitive outcome of peer learning depends on the type and form of the task that the students work on as the level of discussions in the group very much depends on the type of task. Solving simple and tightly structured tasks require only "low-level communication" where the students exchange information and instructions with each other. Cooperation on more complex, open-ended and discovery-based tasks require more creativity, and peer interactions tend to involve a larger degree of higher-level thinking such as applicative and evaluative thinking (Gillies, 2014).

### ***Peer learning in project work at Roskilde University***

Ever since the founding of Roskilde University in 1972 group work has been a central part of the educational program and comprises 50% of the formal study activities. The pedagogical principles behind the group work are referred to as Problem-oriented Project Learning (PPL) and rests on the following six concepts: Project work, Problem-orientation, Interdisciplinarity, Exemplarity of the problem, Participant-directed, and Group work (Andersen & Heilesen, 2015). Without going into the details of each of these principles we note that they form an excellent basis for peer learning.

The last two principles, Participant-directed Group work, almost defines a peer learning context. Not only are students foregrounded, the projects are also student-directed to the extent that the students decide *which* problem to work on and *how* to work on the problem. The first two principles, Problem-oriented Project work, defines the type of task the students are working on. They have to complete a project within an extended period of time, typically one semester, and the problems they are working on are open-ended and resembles actual research. The Problem-oriented Project work is thus a very complex task which involves defining and delimiting a problem, choosing appropriate methods, finding and evaluating literature, analyzing empirical data, drawing conclusions, and communicating the findings in the form of a project report. Additionally, it involves organizing and structuring the whole process. Thus, PPL holds a great potential for achieving most of the outcomes of peer learning, which was probably also the main pedagogical reasons for its design and implementation at Roskilde University. However, this potential is not always fully realized. In our experience the project groups often face several challenges in relation to working as a group and many of the potential outcomes of peer learning are not realized. Rather than actually working together, the project work is divided into various tasks that are distributed among the group members and in the end the various contributions are assembled into a final product. This way, the project work is carried out with a minimum of student interaction and very little peer learning takes place. Further, such work processes can result in fragmented project reports. By structuring the group work the supervisor may attempt to help the group avoid such situations.

Generally, there is very little pre-determined structure in the project work – it is too a large extent up to the students, helped by their supervisor, to structure the work. For some of the first projects the process is scaffolded by the occurrence of workshops such as a problem formulation seminar, a midterm evaluation, and a final evaluation, where the students receive feedback on product and process. For later projects, the only pre-determined structure is given by the deadline for handing in the project report, the rest is up to the group and their supervisor. This means that the supervisor plays an important role on whether or not, and to that extent, the outcomes of the project work are achieved. These outcomes include the quality of the project report and, more important, the general outcomes of peer learning.

### *The role of the supervisor*

The role of the supervisor in PPL is poorly defined and in practice it ranges from laissez-faire supervision to a supervisor-managed process where the project takes its outset in the supervisor's problem idea and the students are instructed how to investigate and analyze. Supervisors are often in doubt how to balance between support and management (Wichmann-Hansen & Jensen, 2015). There are no specific guidelines on how to supervise but some general guidelines and ideas are provided. These include how to set the framework for the supervision and agreeing with the students about the framework of supervision (Memorandum of Understanding) and also guidelines on how to conduct a dialogue-based supervision (Wichmann-Hansen & Jensen, 2015). Regarding the role of the supervisor, three different models are described: the teaching model, the apprenticeship model, and the partnership model. In the recommended model, the partnership model, "Supervision is characterized by conversations, where both parties ask and answer and explore options and interpretations together" (Wichmann-Hansen & Jensen, 2015). During these conversations, the supervisor may ask open questions and questions on higher-order learning levels to promote deep learning among the students.

It is common practice for supervisors to meet regularly with the group, at supervisor meetings, to help the group steer their project, to help find answers to specific questions, and to help resolve emerging problems (both scientific, process-related and sometimes interpersonal). This kind of supervision is characterized by dialogue between supervisor and students and to a lesser extent dialogue between students. Although the supervisor tries to adopt the partnership role, he/she will still tend to behave as a teacher (Wichmann-Hansen & Jensen, 2015). The partnership model does not fully exploit the potential for peer learning in project groups. Deep learning could to a larger extent result from conversation among students, rather than supervisor-student conversation, and the role of the supervisor would then be to initiate and facilitate activities that support such deep learning conversations among students. In the next Chapter we will suggest an example of such an activity and discuss the potential positive outcomes of the activity as well as the challenges.



## **Chapter 3: Peer learning in praxis - design and considerations for the activity**

Our ambition is to develop an activity that stimulates and steers group discussions in order to develop students' understanding of concepts and improve collaboration in the group. We chose to do this by designing an activity where the students present to each other and subsequently discuss the contents of the presentations. This approach is somewhat similar to the peer learning strategy termed "Learning exchanges", coined and described by Sampson and Cohen (Sampson & Cohen, 2001b: 44-46). In our activity the students presented literature considered relevant to their project which was followed by a discussion.

There are many considerations with respect to how this activity should/could be conducted. In the present chapter, the activity will be described in detail along with the underlying considerations. Several variations of the activity are possible, and the pros and cons of these variations will be discussed in order to enable the supervisor to tailor this activity to suit a particular situation.

### **Intended learning outcomes**

The intended learning outcomes of the activity are multiple. Some are related to the general understanding of the Subject Matter. These outcomes are labelled (SM). It is also desired that the students acquire certain skills that supports peer learning in the group. Outcomes that support general Peer Learning in the group are labelled (PL). Outcomes that support Project Work in general are labelled (PW).

- Learn subject matter (SM)
- Concept development (SM)
- Presentation skills (PL/PW)
- Articulation of knowledge/understanding (PL)
- Critical reflection (SM/PL/PW)
- Listening to peers (PL)
- Giving feedback (PL)
- Prioritizing and managing collective decisions (PW)

## **Overall structure of activity**

We designed an activity consisting of the following steps. The rationales are outlines in the next section. Steps 1 and 2 take place at a supervisor meeting, while step 3-6 is the activity itself.

- 1) Preparing the students for the activity.
- 2) Agreeing with supervisor and fellow students on the topics and/or specific texts for the presentations and the number of presentations.
- 3) One student presents.
- 4) Each student identifies two points from the presentation that he/she finds particularly interesting/important and present these two points to the rest of the group, presenting his/her arguments for this particular choice.
- 5) Once all students have presented their points to the rest of the group, the group must collectively decide on the two most important points from the presentation. They do not need to pick among the raised points, they may also merge existing points or invent completely new points if new important points emerge during the discussion. The two points and their importance for the project are written down to be sent to the supervisor.
- 6) Steps 3-5 are repeated for all presentations.

## **Elaboration of activity structure: Considerations and options**

### ***Step 1:***

Thorough briefing of the students prior to the activity increases the chance that the intended learning outcomes are realized. The supervisor explains the purpose of the activity, the structure of the activity itself, and emphasizes that the students by the end of the activity must produce a written product to be sent to the supervisor. The latter requirement serves two main purposes: the students must take the activity seriously to ensure quality in the written product, and the supervisor gets insight into the students' thoughts and ideas on the topic.

The students receive a manual/script<sup>5</sup> similar to the steps (1-6) described above with specifications of time allocated for phase 3, 4 and 5 (see appendix 1 for the written instructions). This written manual is intended to avoid misunderstandings regarding the structure of the activity.

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<sup>5</sup> Group 1 got the manual in English, whereas Group 2 and 3 got one in Danish. They can both be found in Appendix 1.

### **Step 2:**

The student presentations should be based on a relevant text. The choice of texts depends on the academic level of the students and the stage in the project work at which this activity is carried out. Scientific articles may be too difficult to read and present for first semester students for whom a chapter or a section of a textbook may be more suitable. Presentation of review articles may be more suited during early stages of the project work while articles with a more narrow focus may be relevant at a later stage.

In relation to choosing the literature it is an open question as to whether it should be the students or the supervisor. One of the fundamental concepts in PPL projects is that they are participant-directed (Andersen & Heilesen, 2015). If the supervisor chooses the texts the students may lose motivation. On the other hand, the supervisor has a better insight in the field and a better overview of the literature and can provide much better suggestions for texts than the students. A middle way between these two extremes is that the supervisor *suggests* relevant texts and the students might also suggest texts they find interesting and relevant. Following a discussion with the supervisor, the students choose which texts they want to present.

It also needs to be decided whether the presented texts should be read by all students before the presentation. This increases the workload of the students, but they will also be in a much better position to critically assess the presentation and take part in the ensuing discussion about the importance of the text. If the audience is completely unfamiliar with the topic of the presentation they have no chance of engaging in a discussion with the presenter. Such situation bear more resemblance to peer teaching than to peer learning. Conversely, if the presented matter builds upon basic concepts that the audience is comfortable with, only the presenter may need to study the text.

### **Step 3:**

Studying a text and explaining it to others is an efficient way of learning new subject matter. It is anticipated that the presenter puts in a significant effort in trying to understand the text. The presenters develop their presentation skills and their communication of scientific matter. The audience learns about the subject matter and may develop their own presentation skills by reflecting on their peer's presentations. By insisting that presentations should be finished within the allocated time (e.g. 15 or 20 minutes) the students learn about timing. This exercise hereby resembles the presentation that each student must do at the project exam.

#### **Step 4:**

Asking each student to present the two most important points from the presentation motivates the students to pay careful attention to the presentation. At the same time, the presenter gets a rare insight into what his/her fellow peers have actually (mis)understood from the presentation and whether the messages got through to the audience. This round, forces everyone to speak and makes sure everyone is heard.

#### **Step 5:**

It is anticipated that the collective identification of the two most important points stimulates some good scientific discussions in the group. The students are forced to argue for their views, opinions are confronted, and by discussing each text in relation to the overall project the students are forced to reflect on the direction and methods of their project.

#### **Supervisor presence**

The presence or absence of the supervisor during the presentations and the ensuing group discussions may have a huge impact on the activity and the outcomes. The presence of the supervisor can have a disciplinary effect on the students and ensures that the activity is conducted as planned. On the other hand, supervisor presence may have a negative impact on the discussions as some students may be afraid to speak while others will say something just to make an impression on the supervisor. This notion is backed by Boud, who writes:

*“Students are often better able to reflect on and explore ideas when the presence and authority of a staff member (Boud and Walker, 1998) do not influence them” (David Boud, 2001: 8).*

#### **Evaluation of activity**

The activity was evaluated by the supervisor and students through oral and written evaluations. The supervisor freely reflected on the activity on the basis of the ILO's and these questions:

1. Do you feel like the activity lived up to its intended purposes? Why/why not?
2. Did it go as you expected? What did/didn't? Do you feel the group has a culture of peer learning?

3. What might have done differently.

These reflections were written down for documentation and as a help to remember our thoughts.

The students filled in a questionnaire with questions related to the perceived outcomes of the activity (see appendix 2). Group 2 and 3 got the questionnaire in Danish whereas Group 1 got it in English.

## **Chapter 4: Learning outcomes of the activity**

The activity was tested on three project groups at Roskilde University:

**Group 1:** Three students, two students are at the third semester of the Master program, one student is at the first semester of the Master program.

**Group 2:** Five students working on a 1<sup>st</sup> semester project.

**Group 3:** Six students working on a 1<sup>st</sup> semester project.

For all of the groups, the activity was carried out in the first half of October 2017, that is, during the initial part of the project work which lasts from around mid-September until Christmas. Group 1 and 3 did the activity themselves without the supervisor whereas Group 2 had the supervisor present. We did this to be able to reflect on the effect of having the supervisor present. Furthermore, the activity was carried out in slightly different ways in all three groups, which has to do with supervisor preferences and circumstances. We will reflect on this later in the report.

In the Chapter describing the activity the intended learning outcomes were described. In the present Chapter we evaluate to what extent these outcomes were realized. Doing an exhaustive and quantitative analysis of the outcomes is beyond the scope of our project and we will instead limit our analysis to a few emerging issues which we think are the most interesting. The analysis is based on the student questionnaires, the oral debriefing at the first supervisor meeting after the activity, the hand-ins about the most important points from the presented texts, the observations of the supervisor at the activity where he was present, and the general impression of the supervisors.

### **Learning of subject matter**

Several of the ILOs of the activity relates to the learning of subject matter. Not only should the students learn subject matter, it is also anticipated that they learn it on a higher level than if they studied the texts themselves. By engaging in discussions about the texts it is anticipated that the students enhance their understanding of concepts and to a larger extent reflect critically on the texts. All students replied that they learned “something” from the presentations, and it is also the supervisors’ impression that the students learned subject matter, although to different extents. This conclusion may seem trivial as it would have been surprising if the students had learned nothing,

but the disciplinary effect of the activity should not be neglected. Conducting this activity pushes the students to spend an effort on the project. They had to read relevant texts, and they also had to analyze and reflect on the text in order to prepare the presentation. Without the activity, these efforts may not have been made.

But was it an advantage to listen to the student presentations and having the discussion with the other students? One student from group 2 replied:

*“No, I didn’t understand it better than if I had read it myself. But I learned something.”*<sup>6</sup> (Student, Group 2)

It is not clear from this answer exactly what the student had learned. Learning “something” could refer to learning subject matter, or maybe the answer simply reflects that it was not clear to the student what she had learned. Another student from group 2 was a little more specific:

*“Yes, I learned something new. New concepts that definitely will be useful in the project. However, it did not improve my understanding of the text – that would have been the same no matter what.”*<sup>7</sup> (Student, Group 2)

Similar replies were received from other students in the same group. In this group there was a general feeling that they could have learned the same thing by studying the texts themselves. In Group 3, on the other hand, the student replies clearly gave the impression that they had benefitted from the peer interactions:

*“It was definitely an advantage that the other group members supplemented with their considerations, and the activity gave rise to a good discussion.”*<sup>8</sup> (Student, Group 3)

In Group 1 the student replies indicated some appreciation of the peer interactions but it was more related to efficiency in sorting between relevant and irrelevant information in the texts and not so

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<sup>6</sup> Translated from original: *“Nej, jeg forstod det ikke bedre end hvis jeg læste det selv. Men jeg lærte da noget”*

<sup>7</sup> Translated from original: *“Ja, jeg lærte noget nyt. Nye begreber, som helt klart kan bruges i projektet. Men min forståelse af teksten blev ikke bedre af det – det ville være det samme uanset hvad.”*

<sup>8</sup> Translated from original: *“Det var klart en fordel, at de andre i gruppen supplerer med deres overvejelser og diskussionen der blev affødt af opgaven var god.”*

much related to understanding of subject matter. However, the supervisor had a good impression of the cognitive outcomes of the activity. At the first supervisor meeting following the activity the students had got a much better understanding of some difficult concepts and they also asked some very relevant questions. From the conversation with the students and from the written report of the activity it was clear that they had critically assessed the texts to relate them to their own project. They had identified the important differences between the analyses described in the texts and their own project.

Why were the cognitive outcomes resulting from peer interactions so seemingly poor in Group 2 relative to Group 1 and 3? We speculate it is related to the way the students prepared (were told to prepare) for the activity. In Group 1 and 3 the students had read the same texts prior to the activity whereas the 5 students in Group 2 had based their presentations on 5 different books that had not been read by the other students. The fact that the presented material was unfamiliar to the listeners may have prevented a proper discussion of the contents. Another relevant factor was the supervisor presence in Group 2 which may have made the students more reluctant to speak. These two factors are discussed in more detail in the chapter on Methodological reflections.

### **Making group work work: improving cooperation**

Some of the ILOs of the activity relate to the learning of subject matter, while other outcomes relate to creating the right conditions for group work and support cooperation within the group. This requires that the peers communicate effectively and that they are able to make decisions and move forward in the work process. It seems that the most significant outcomes of the activity, as experienced by the students, are related to making group work more efficient and to improve collaboration to make a coherent project. In other words: making group work work.

### ***Efficiency in scanning literature***

In several groups the students highlighted the efficiency of distributing reading tasks among the group members to get an overview of the literature. This is reflected in several student replies when asked about the most important outcome of the activity:



*“Spreading out articles among the group members and having each member make a short presentation is an efficient way to gather information.”* (Student, Group 1)

*“That we are stronger together, instead of each of us having to read all of the literature and then write a project. It is better to supplement each other and distribute the tasks, otherwise you will drown.”*<sup>9</sup> (Student, Group 3)

This feeling of efficiently scanning the literature was apparent in many of the student replies from Group 1 and 3 but to a lesser extent in Group 2. In this group, however, there was a feeling that the activity helped them sort between useful and not useful literature and “*get rid of irrelevant literature*”. Finding and sorting literature and afterwards identifying and extracting the useful theories and concepts from the literature are important processes in problem-oriented project work, and it is clear that the students felt that the activity helped them do that.

### ***Disciplinary effects***

Several students felt that the activity was helpful in that they were pushed to move forward with the project:

*“I think it was that the hole presentation thing helped the group getting on with the project (...)”*  
(Student, Group 1)

*“I think it was a good exercise to help us getting started.”*<sup>10</sup> (Student, Group 3)

It can be argued that almost any activity that “forces” the group to get together and discuss their project will help them move on with their project. However, the students will only be left with this feeling if the activity has been productive. From our own experience, project work often results in a feeling of “getting nowhere”, where the group members leave a group meeting feeling they have achieved nothing or even feeling that the project is more chaotic than before. The success of the activity in making the project move forward should not be trivialized.

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<sup>9</sup> Translated from original: *“At sammen er vi stærkere, I stedet for at vi alle skal læse alt litteraturen og så formidle en opgave. Det er bedre at supplere hinanden og uddelegere opgaver, for ellers drukner man.”*

<sup>10</sup> Translated from original: *“Jeg tror, det var en fin øvelse for at blive skubbet i gang.”*

There is a risk that the students become used to having the supervisor “pushing” them to work. If they only work when they are told to they will not develop self-disciplinary skills. It might become a bad habit to rely on the supervisor and only work on the project when the supervisor initiates activities. While this risk should always be kept in mind, it does not seem to pertain to the present cases. On the contrary, the students in Group 3 seemed very inspired by the activity and planned to do it again.

### ***Creating coherent projects***

Ideally, a project report should be a coherent entity with no noticeable changes in style between the various chapters, there should be a natural progression in the report, and there should not be any unnecessary repetitions. Achieving this outcome requires a close collaboration in the project group where the direction and contents of the project is continuously discussed and agreed upon. The group members should in principle “align” their understanding of concepts and their ideas. It is our assumption and hope that good collaboration within the group will result in a coherent project report. The student evaluations indicated that the activity contributed to this outcome. When asked about the most important outcome of the activity a member of Group 1 writes:

*“Though it might take a little longer time in the beginning, it might be a more effective way of finding relevant theory that should be included in the project, **but also a very good way to understand the other subjects, that the other members have been working with.**”*

*(our emphasis) (Student, Group 1)*

This group was explicitly told that one of the purposes of the activity was to prevent fragmented projects, so this might influence the student’s perception of the outcome of the activity. Several student evaluations from group 3, where the students were not told that this was part of the purpose, also indicated a feeling that the activity contributed to creating a coherent project. When asked about the most important outcome of the activity they replied:

*“ (...) and hopefully this exercise has contributed to creating a common foundation for some of our basic knowledge in the project.”<sup>11</sup> (Student, Group 3)*

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<sup>11</sup> Translated from original: “ (...) og forhåbentligt har denne øvelse været med til at skabe et fælles fundament for noget af vores grundlæggende viden om projektet.”

*”That the group can get onto the right path and easily reach agreement”<sup>12</sup> (Student, Group 3)*

### ***Partial conclusion on outcomes of the activity***

Did the activity help the groups work on their project? In the case of Group 1 and 3 we got a clear impression that the activity helped the groups move forward. They efficiently scanned a number of texts, identified the relevant theories and concepts, and agreed on how to use these in their projects. Group 2 had some overall discussions about which literature could be relevant, but they did not reach agreement on this and they never really went into a deep discussion of the contents of the texts they had skimmed. It would be overly negative to conclude that the activity did not help Group 2 move forward with their project. After all, sorting and discarding irrelevant literature is an important part of the process but this phase could have been conducted together with the supervisor prior to the actual activity such that they could have used the activity to dig a bit deeper into the literature. The lack of discussion about the contents of the texts also had the consequence that Group 2 learned less subject matter than the two other groups.

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<sup>12</sup> Translated from original: *”At gruppen sagtens kan komme på rette vej og sagtens kan være enige”*

## **Chapter 5: Methodological reflections on improving the activity**

Looking at the outcomes of the activity we identified several issues and aspects of the activity that one should pay attention to. In the present chapter we will discuss these issues and consider what to be aware of and how to improve the activity.

### **Choosing and preparing literature**

An issue that gave rise to several questions and doubts in the peer learning activity was deciding on literature; what should the students read? Who should decide what to read? And should everyone read the same? It should be noted that choosing literature is not merely a technical issue as it relates to larger issues such as the degree of supervisor control in a student-directed learning environment, which makes it a complex task (Wichmann-Hansen & Jensen, 2015). Despite having the ideal to have both the supervisor and students suggest literature and then together discuss what literature should be looked further into (and what the criteria for relevance should be), choosing and preparing literature ended up being carried out in different ways in the three groups for various reasons.

**Group 1:** The group did not come up with any suggestions for literature, so they ended up preparing the articles suggested by the supervisor. During the preparation the group switched out one of the articles with one they had found themselves. In this group everyone read all the articles, which was asked by the supervisor.

**Group 2:** This group chose the literature entirely themselves. The supervisor had suggested little literature for the project and had urged the group to find literature themselves<sup>13</sup>. For the activity every group member had found different books and presented selected chapters from their book. They had only read their own literature and the supervisor did not encourage them to read each other's texts.

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<sup>13</sup> Apart from wanting the group to learn competences in searching literature by 'doing it themselves' the supervisor deemed them competent to do so, partly because one of the group members had talked of several theoreticians she knew from having Psychology in High School.

**Group 3:** This group also chose literature themselves for the activity, but they selected two books that the supervisor had suggested earlier in the process. Consequently, the group members distributed chapters from two different books with the same topic. For this group it was encouraged - granted they had the time – that they read or skimmed each other’s texts, but it is a bit unclear as to whether they did this. Reading the evaluations, it seems like they might have read all texts as some felt that it was fruitful hearing other group members’ perspectives on texts they had read themselves.

### ***Who should choose the texts?***

The different practices in the groups had different effects. In the two first semester groups the students more or less chose literature themselves and were generally encouraged to use libraries and librarians for literature research. This approach has the advantage that students learn to seek out knowledge and gain experience in identifying and prioritizing literature, which is an expected competence in higher education. This approach can be very time consuming for the group both in terms of searching and afterwards agreeing on literature. In this aspect it would be much ‘easier’ having the supervisor point out relevant literature – the more specific, the better. Also, literature given by the supervisor might have a higher legitimacy and does not need as much discussion and negotiation to be accepted as ‘relevant’, which can be more difficult when peers have to agree. This seems to have been the case for Group 2, where they had a hard time deciding on what literature to proceed with – it is not that they did not have comments and opinions on the different books presented, but the final prioritization – and discarding – of literature proved difficult, which is visible in the supervisor’s reflections:

*“(…) They did in the end comment on the relevance of the presented literature, but I’m not sure they all accepted this or made it a group decision. For example, one of the presenters presented from a book from high school and it became a topic whether such a book could be used (with inputs from me) and the presenter also commented herself that book was very easy, probably too easy. After a little discussion another group member summed up “Ok, so we won’t use the book from high school?”. After short silence two other group members, including the presenter, protested and said that it would ‘probably still be relevant’. This kind of surprised me because they all sort of agreed that the book was too easy and therefore not super useful. But still two members held on to its relevance – maybe because it is scary and potentially conflicting to ‘not use’ a book?” (Supervisor’s reflections on Group 2)*

In this case it might have been more effective (in terms of agreeing on literature to proceed with) to have the supervisor help decide more actively on relevant literature to have an external legitimization of literature. In the supervisor's reflections, he feels ambiguous about how he should 'intervene' in the groups discussion and ends up trying to implicitly affect their choice in order not to compromise the groups independence or autonomy. Retrospectively, the group might have benefited from having the supervisor put the foot down and telling the group which book to proceed with (and which not)<sup>14</sup>. Another point might also to be to least help the group agree on fewer publications.

### ***Should the students read each other's texts?***

In relation to having the students read (or skim) each other's texts, it looks to have been a good idea to do so. Of course, this depends on the purpose. If the purpose is to discuss concepts and engage in deep learning on a topic, reading each other's texts is a good idea, because it helps students relate to the content. If discussing a topic was the only purpose then students might read the same text only, but this would make presentations less relevant. In Group 1 there seems to have been a high degree of discussing concepts and the supervisor felt that they had all gained better understanding of the topic when talking to them at a subsequent supervisor meeting. This can possibly be contributed to the students reading the same texts and reading limited literature. This was done opposite in Group 2, where they had very different (and voluminous) books. One might say that Group 1 got further in their understanding and discussion than Group 2, which again points to the question of having the supervisor help with concrete literature or letting the group find it themselves. Here it might be a good idea to help the students delimit which kind of literature they should find and how much if the purpose is to engage in peer learning understood as improving understanding of concepts and critical discussion. More help from the supervisor would help to control the group and possibly make their discussion more focused. This point is especially important for first semester students who are new to academic reading and therefore require more scaffolding in their learning processes.

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<sup>14</sup> It is perceived as a general problem for the group to have too much literature and not agreeing on limited texts. The supervisor has not been very active in suggesting concrete literature, which is also a part of the group's history as it might add to the uncertainty they show when having to prioritize.

### ***The students' idea of the activity's purpose affects the outcome***

The differentiated outcomes of the activity in relation to learning subject matter and improving cooperation, we found, was connected to the perceived main purpose of the activity. This turned out to be interpreted slightly different in the three groups. The first group having prepared five different books each spend time trying to 'prioritize' their literature. Their books were all very general, introductory publications, which made the discussion a bit superficial. The feeling of superficiality might also arise from the supervisor's presence and the students feeling that the purpose was more social and group dynamic; when asked about the perceived purpose of the activity a student from Group 2 answers "*to see our way of talking together in group*" (Student, Group 2).

In Group 3 they seem to have had an energetic discussion and experienced having gained understanding of their topic from discussing with peers. The purpose here turned out to be agreeing on chapters and discussing content. In the final group there seems to have been a lot of focus in the topic itself and discussing different concepts in relation to this. Here, 'choosing literature' was more in the background.

Summing up, the purpose of the activity became slightly different in the three groups, which affected the feeling of 'what we got out of it'. Here, it is vital for the supervisor and group to be conscious about the purpose and to design the activity accordingly.

### ***What is to be learned?***

Drawing on our experience from the activity a few points can be made. First, preparations for the task should be scaffolded carefully. The supervisor should assist the students decide on the amount and type of literature to be presented. The texts should not be too different in topic and style if concepts are to be discussed, and the amount of text should be relatively limited. Otherwise there is a risk that the peer discussion during the activity will only treat the texts on a superficial level and not discuss the meaning of concepts and theories. In this context, it should be kept in mind that texts suggested by the supervisor possibly claim higher legitimacy because of the academic authority and which may affect the way the students prioritize the texts.

Discussions and concept-building seems to be way more fruitful, when students have skimmed all texts. They do not necessarily have to read them to the same degree of detail, but everyone should have skimmed the texts. This supports a discussion of the texts on a deeper level.

In the end, the choice of texts to be read depends on the different purposes of the activity: to prioritize from large material, to choose from chapters within a book, to plunge into a conceptual discussion. Concludingly, it seems like the more mutual discussion and peer learning is desired – the more they should read the same texts and not too much.

## **Degree of structure and intervention in the activity**

As mentioned the balance between intervening and letting the students do the activity more freely is not an easy one – especially at a university that prides itself with student-centered learning and seeks to educate independent, critical academics. The balance is difficult and supervisors, roughly speaking, navigate between spoon-feeding the students and being a ‘beacon light’. Boud touches upon this issue when he writes, *“The extent of the responsibility they (academic staff, our clarification) take is a matter of careful judgement.”* (David Boud, 2001: 10)

A guideline to lead the group in a right direction is important, however, the supervisors should be aware of the risks pertaining to over-supervising and prospects of under-supervising.

In Group 2 they found it difficult to decide on the literature they wanted to proceed with, which might point to a need of further support from the supervisor in finding and preparing literature for the activity. Another point that might explain this ‘problem’ is the fact that Group 2 did not have any follow-up on the activity, that is, they did not produce a hand-in for the supervisor as group 1 and 3 did. The purpose of the hand-in was manifold; to have the groups document that they actually carried out the activity, to help steer the activity as intended, to give the supervisor insight and to have the students agree on a common text with the most relevant points from, and an assessment of, the literature. So why didn’t the supervisor just ask the group to write down their discussion and prioritize literature? In the supervisor’s reflections he writes that he considered having the group write down their prioritizations as planned but ended not doing it, partly due to an ambivalent feeling about being present during their discussions:

*“I did not feel comfortable being present while they had to discuss which literature they would continue with and which not. Simply because I was afraid that they might turn to me and make me have the last word or input to decide which literature was the most relevant. And I don’t see this as my task, at least not in this context where the focus is on the group and their discussions. I did not want to risk overruling certain viewpoints in the group or taking any ones party. Therefore, I more sort of implicitly commented on the literature not really excluding any but probably favorizing some of it more or less implicitly. Anywho, no*



*concrete (future) plan for the literature was made and that annoys me...*" (Supervisor's reflections on Group 2)

Here, the supervisor chose not to intervene in the group discussions and make them write down the most important literature. Looking back, it can be argued that having Group 2 produce a hand-in with the most important points from and a prioritized list of the discussed literature, might have helped the group to be decisive and have a more specific plan for future reading.

### ***Presence of supervisor***

As written in our considerations, it was a challenge to decide whether the supervisor should be present at the activity or not and to which extent he/she should intervene. During the activity in Group 2, where the supervisor was present, it quite quickly became evident that the presence had an impact on the group's interactions. In the supervisor's reflections he comments that he felt 'awkward':

*"I quickly felt that my presence was kind of awkward and kind of regretted being present (To begin with their attention was directed towards me, and the first presentation felt a bit like an examination although I said nothing)."* (Supervisor's reflections on Group 2)

He comments that the situation felt like an examination, because the students had most of their attention drawn towards him in their presentations. Even though the supervisor tried to make himself 'invisible', which had some effect on letting the group discuss themselves, the presence affected the group dynamics in a way that might not be said to promote peer learning. One drawback is that the students seemed to rely on the supervisor to facilitate the discussion, which does not support the students learning to be independent and do activities on their own. The significance of the supervisor can also be seen in one of the student evaluations, where the student answers the question on what they saw as the purpose of the activity:

*"I think you wanted to see our understanding of the literature so far, and see how we function as a group."* (Student, Group 2)

The student directs the comment towards 'you' being where aware that the supervisor read the evaluations. Also, the student's formulation that the supervisor wanted to see 'how we function as group' might indicate a high awareness of the supervisor being there, thus creating an atmosphere of assessment, which is not very supportive of a peer learning-environment, because the students'

attention might be focused on ‘behaving nicely’ and saying the ‘right things’ instead of discussing more freely.

To sum up, in a peer learning perspective it wasn’t fruitful to have the supervisor present. But from a supervisor’s point of view the presence helped getting a better impression of the group. Some of the group members were normally very quiet at supervisor meetings, but with the activity they were ‘forced’ to express themselves because everyone had to do a presentation and do rounds commenting the other presentations. In this way it was possible to get an impression of the students that aren’t very active at the supervisor meetings. This is becoming increasingly relevant at RUC with a rising emphasis on individual assessment at the exams. Another point speaking in favor of supervisor presence, taken from David Boud 2001, is that the supervisor can act as a facilitator thus moderating the group to ensure equal opportunities for group members to participate, which is not always possible in group work, where survival of the fittest (and strongest) student sometimes rules (David Boud, 2001: 10). On the other hand, the argument can be raised that a group as part of the education at RUC must learn to function democratically without the supervisor being present.

Overall the presence of the supervisor, in our case, did not support peer learning – and we would not have supervisor present for future activities of the same kind.

### ***Over-structuring: identifying two points from the texts***

Although it is important to manage and structure activities for the students, it can also be overdone, which was the case for the phase in the activity where group members had to mention two points they found relevant in their colleagues’ literature presentations. All groups mention that writing down just two points became very restricting and it was difficult to define what a ‘point’ was. A student from Group 1 writes that “finding 2 points did not seem like a good use of time” (Student, Group 1). Not seeing the identification of two points as meaningful, the groups chose to discuss the literature more openly, like a student from Group 1 says:

*“Instead it was better to talk about the text as a whole and determine what was relevant, what parts overlap with other texts and which parts don’t need to be studied further.”* (Student, Group 1)

It could be noted that the competence of the groups should not be underestimated; groups will make the exercise 'work' and are not afraid to deviate from instructions to do this.

## Chapter 6: Conclusion

The purpose of the present project was to explore the possibilities for improving peer learning in RUC project groups through supervisor-initiated activities. We designed an activity in the form of a presentation seminar, where the students presented literature thought to be relevant for the project. The activity was carried out in three project groups. The outcome was evaluated based on written and oral feedback from the students, and several positive results of the activity were identified. The students emphasized the efficiency of distributing reading tasks and then presenting the main points from the literature to the rest of the group. The activity helped them efficiently ‘scan’ the literature and gather information that was useful in their project. Although this outcome was not one of the main arguments for the activity it is nevertheless an important aspect of group work to distribute tasks and subsequently integrate the completed tasks into the group project. Another important outcome was the improved understanding of the read texts fostered by the presentations and the discussions in the group. Further outcomes relate to collaboration in the group as the discussions fostered by the activity helped the students agree on the direction of the project, and the individual group members got an understanding of all aspects of the project. This might add to groups producing less fragmented project reports. Finally, the activity had a disciplinary effect in that it forced the students to work structured and gave them a feeling of ‘moving forward’.

There were significant differences in how the activity was conducted in each of the three groups, and the resulting differences in the outcomes illustrate the importance of scaffolding; One of the groups were given the freedom to choose the texts to be presented, and they ended up each presenting a whole book that had not been read by the rest of the group. The resulting discussions were superficial, and the contents of the books were not really discussed. Thus, the cognitive advantages of the activity being a group activity were limited - some students felt they could have gained the same understanding by just reading the texts themselves. Further, the group had difficulties deciding which books to discard and which books to look more into. From this we learned that if the activity is intended to foster discussions of concepts and support deep learning the texts should not be too voluminous and too varied, and all students should at least skim each text. The supervisor needs to ensure these guidelines are followed. Also, it was our experience that the presence of the supervisor was not needed as it made the situation awkward and school-like, not adding to peer learning.

In an attempt to steer the discussions in the activity the students had been instructed to identify the two most important points in each text. This requirement turned out to be unnecessary and could have had a detrimental effect on the discussions by limiting the conversation. The students felt that this requirement was too restrictive and fortunately decided to abandon it.

Overall, the activity focused on peer learning was a success in two out of three groups which is illustrated by the fact that one groups happily stated they would like to do the activity again in the future, because it kickstarted some good discussions. In the third group the problems that emerged have helped us reflect on improvements for future activities and especially the importance of structure and scaffolding.

We think that the overall positive outcomes justify an enhanced use of activities that help the project groups structure their group work in order to improve collaboration and move forward with the project. Even though there are several milestones during the semester at RUC to make the students produce and perform (Problem seminar, midway seminar, project technique course) additional or alternative structured activities should be integrated into the reflective praxis of supervisors. It is our belief that this will help to professionalize supervision and emphasize that it is more than 'just talk'.

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# Appendixes

## Appendix 1 – written instructions

In order: Group 1, 2 and 3.

### Instructions: Student presentations of texts

#### Overall description:

A number of students in the project group each do a presentation of a text for the rest of the group. Based on the presentations, the project group identifies the importance and relevance of the texts for their project.

#### Detailed instructions:

- 1) One student does a presentation of his/her text to the rest of the group.  
*Duration of each presentation: 15 minutes.*
- 2) Each student in the audience identifies two points from the presentation that he/she finds particularly interesting/important for the project and present these two points to the rest of the group, presenting his/her arguments for this particular choice.  
*Time per student: Max 5 minutes.*
- 3) Once all students have presented their points to the rest of the group, the group collectively decides on the two most important points from the presentation. They do not need to pick among the raised points, they may also merge existing points or invent completely new points if new important points emerges during the discussion. The two points and their importance for the project are written down to be sent to the supervisor.  
*Suggested duration: Around 25 minutes (excluding writing down the points, notes should be taken but the text for the supervisor can be written at a later point).*
- 4) Point 1-3 are repeated for all presentations.

## Øvelse: præsentation og diskussion af tekst for gruppen

Til vejledermøde mandag d. 9. oktober

### Forberedelse:

- 1) Gruppen fordeler tekststykker ell. lignende, som har relevans for projektet til hvert enkelt gruppemedlem (kapitel i bog, uddrag, artikel m.m.)
- 2) Hver studerende forbereder hjemmefra en 5-10 min. (ca.) præsentation af den pågældende tekst. Dvs. hvad er budskabet? Hvad er det for en tekst? De centrale pointer i teksten, hvem har skrevet den, fra hvilket perspektiv osv.

### Aktiviteten:

- 3) Teksterne præsenteres til vejledermøde. Når den pågældende person præsenterer, så lytter resten gruppen og noterer to pointer, som de mener er særligt vigtige. Disse pointer fremlægges efter præsentationen.
- 4) Gruppen bliver først enige om to pointer, der var særligt vigtige i præsentationen. Derefter diskuteres tekstens relevans for projektet.
- 5) Til slut diskuteres det, hvilke tekster gruppen bør gå videre med, og hvilke der er mindre vigtige ift. projektets fokus.

Hele øvelsen tager ca. 1 time.

## Øvelse i studenteroplæg om læst litteratur og diskussion

Forsøg så vidt muligt at følge denne guide og gå helhjertet ind i øvelsen. Formålet med øvelsen er, at gruppen får præsenteret, diskuteret og prioriteret læste tekster.

Afsæt ca. 1,5 time til øvelsen.

Fremgangsmåden er tænkt i fire trin, som I bedes følge:

### Forberedelse:

1. Gruppen fordeler tekster eller tekstbidder mellem sig, som de mener kan være relevant for projektet. Det kan være artikler, bogkapitler, uddrag fra tekster, film eller lignende.
2. Gruppemedlemmerne læser deres tekst hjemmefra og forbereder en præsentation af teksten på ca. 10 minutter. Ideelt kan gruppemedlemmerne på forhånd have læst hinandens tekster, eller skimmet dem. Præsentationen kan fx være; budskab, centrale pointer, argumenter, formål, afsender og modtager, genre eller andet.

### Selve aktiviteten:

1. Et gruppemedlem præsenterer sin tekst, mens de andre lytter. Undervejs noterer de lyttende gruppemedlemmer to pointer ned, som de finder væsentlige i præsentationen af teksten. Pointerne kan være forskellige indtryk/konklusioner fra teksterne, men også andre ting som du finder relevant at notere fra præsentationen.
2. Tag en runde, hvor hver person præsenterer sine to pointer, og forklarer hvorfor netop disse to er interessante.
3. Når alle har præsenteret deres pointer, skal gruppen i fællesskab udforme/diskutere sig frem til bare to pointer, som *de noterer ned*. Pointerne behøver ikke være nogle af de hidtidige, men kan også opstå i diskussion eller ved at sammensmelte andre pointer. Så længe gruppen er enig.
4. Punkt 1-3 gentages indtil alle har præsenteret deres tekst.
5. Øvelsen munder ud i en lille fælles diskussion om teksternes relevans – er det nogle I vil gå videre med? Nogle som alle i gruppen bør læse? Hvad vil I læse til næste gang og hvem læser hvad?

### Evaluering:

Efter I har gennemført øvelsen bedes I udfylde et evalueringsskema, som jeg har tilsendt i mail. Disse evalueringer sendes sammen med den beskrevne aflevering nedenfor.

### Aflevering:

Øvelsen sammenfattes i en tekst, som sendes til vejleder. Teksten skal indeholde: De to endelige pointer fra hver tekst samt et par ord om tekstens relevans (eller mangel på samme) i projektet ift. projektet. En litteraturliste over de præsenterede tekster. Sendes sammen med andet materiale til d. 13/10.

*Tak for det, og pøj pøj med det! Mvh Kasper*



8) What is the most important thing you learned from this activity?