

An Academic and Personal Approach to Supervising Project Groups

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ABSTRACT

This article investigates and exemplifies the personal side of our supervising skills. This is inspired from psychotherapeutic research specialized in investigating openminded contact and authentic meetings. The article is based on our experiences supervising project groups at Roskilde University. Supervision is sometimes a challenging task that may manifest and confront personally-related issues. We advocate combining an academic and personal approach to supervising project groups. We provide a range of empirical examples from the supervising project groups, illustrating the type of personal challenges we meet. These challenges are characterized and conceptualized, and some concrete ways to deal with them are proposed.

Keywords: Project groups; supervision; personally-related issues and challenges; negative self-relations; performance pressure or anxiety; psychotherapeutic research; body-oriented awareness; grounding; the Sensethic Approach

INTRODUCTION

The practice of working in and supervising project groups at the university level involves multiple activities in which the participants – the students and their supervisor – must meet and maintain contact with each other. Supervising project groups constitutes significant numbers of communicative interactions and social dynamics. The students and their supervisor need to establish, develop, and maintain constructive contact relationships throughout the course of the project. This relationship may be characterized from both an academic and a personal perspective.

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This article investigates supervision from the perspective of the *quality of the contact relationship* in the communicative interactions between the supervisor and the students in the project group (Simonsen & Storm Jensen, 2016). We focus on situations where the contact quality is compromised because of one or more of the participants, that is, the students or the supervisor, face personal challenges, such as, for example, performance pressure or anxiety. Inspired by body-oriented psychotherapeutic research, we highlight the personal perspective and its importance in maintaining open-minded contact during the supervision of its academic discourse.

The background for this article comes from the authors' experiences with two levels of supervision. The first author is a professor at Roskilde University and has 30 years of experience supervising project groups. All empirical examples given in this article are drawn from this extensive teaching portfolio. The second author is a psychologist and a private practitioner, who is also a former adjunct professor at Roskilde University, where he supervised professors and other academic staff experiencing related personal issues that challenge their work life. The authors have collaborated for one and a half decades, supervising project groups and university staff in the practice of supervising project groups, themselves. Part of the background for this article comes also from workshops on teaching participatory design (Andrews et al., 2014; Simonsen & Storm Jensen, 2015) and a conference paper aimed at participatory design researchers (Simonsen & Storm Jensen, 2016).

We provide our empirically-based knowledge and examples as inspiration and as an interdisciplinary contribution to the literature on problem-oriented project-based learning in general (Andersen & Heilesen, 2015; Jensen et al., 2019), and add to the literature with a focus on supervising project groups (e.g., Macfadyen et al., 2019; Woolhouse, 2002; Murray-Harvey et al., 2013; Coelho, 2014). More specifically, this article adds to the body of literature on topics such as group processing (Lachowsky & Murray, 2021); observing the supervisor as "a social mediator, listening actively to what kind of psychological dimensions are taking place among the group members" (Nielsen & Danielsen, 2012, p. 263); acknowledging that "supervisors involve group dynamic processes as an important aspect of their supervision" (Andersen & Dupont, 2015, p. 132); and that it might be "necessary as supervisor to take an interest in the student's motivation and academic problems from a process-related and psychological perspective" (Feilberg, 2015, p. 42, translated from Danish).

We have written this article with our fellow supervisors in mind, that is, university professors, external lecturers, PhD-students, and others. PhD students might be a particular target group, as they experience a transition from being supervised students to becoming supervisors of graduate and undergraduate students.¹ This might lead the PhD

student to implicitly demand more experience of him/herself than he/she actually has, which can lead to performance pressure or anxiety.

We encourage supervisors to use their basic research orientation in reflecting upon and responding to the challenges they might experience when supervising project groups, that is, through a research-oriented approach, investigating what is at stake and responding appropriately. We hope a broader audience can also find this article valuable by relating to any type of interactive situations where an authentic, credible, attentive, and present contact is important, for example, when colleagues, friends, partners, and children come together and wish to communicate.

In the following, we characterize an academic and personal approach to supervision that we use as our analytical lens and from which we also propose ways to address personally related challenges. This is followed by two sections introducing challenging situations and providing a number of empirical examples (as short vignettes) on how these might unfold. The first section focuses on the situations where the supervisor meets the students being challenged. The second section focuses on situations where the supervisor experiences his/her own personal challenges. All examples are presented from the perspective of the supervisor. We end the article concluding our empirical and conceptual contribution.

AN ACADEMIC AND PERSONAL APPROACH TO SUPERVISION

The relationship between *profession* and *person* has been addressed within education and other disciplines that include significant human contact, such as in the work of educators, nurses, social workers, school teachers, and home caregivers (Weicher & Laursen, 2003). Within the field of social work, for example, the relation between profession and person is discussed as a specific competency (Posborg, 2009a), practical skill (Posborg, 2009b), and as an essential focal point of supervision (Fehmerling, 2009). Personal – in this respect – is different from being "private." It is not about "becoming friends," but realizing the fact that the personal side of our being should not be ignored when engaging in human contact. The personal part of human contact in a professional context "involves being able to share thoughts, feelings, knowledge, and opinions that are *[professionally] relevant* during the meeting" with the participant(s) (Posborg, 2009a, p. 146, translated from Danish).

Below, we elaborate on the profession-person relationship for university supervisors as an academic and personal perspective that may be combined in an approach to supervision. We focus the academic perspective on *academic reflections*, that is "using

your head/brain" (intellect), while the personal perspective focuses on *body-related* awareness, that is "sensing our body/feelings."

Academic reflection may include professional knowledge and reflective capabilities expressed through logical thinking, analytic reflections, comparisons, and through conceptualizing and inductive, deductive, and abductive² reasoning. In general, supervisors develop academic abilities through comprehensive and year-long academic education, training, and career experiences. A special characteristic of academic reflection is the ability to imagine and envision what you think is going on, for example, during a supervision meeting. As a matter of fact, there is no end to what you can imagine and hypothesize. In some situations, this may challenge us by providing almost endless speculations and worries in our attempt to resolve a problematic situation (Storm Jensen, 2008).

Body-related awareness is grounded in the body's sensing apparatus, that is, what can be seen, heard, observed, and perceived through basic bodily assessments or sensations and feelings, for example, confusion, anxiety, disappointment, anger, relief, compassion, or sadness. Contrary to academic reflection, body-related awareness is not a core part of the academic curriculum. In fact, it might not be part of the curriculum at all, even for programs within psychology. A special characteristic of body-related awareness is that what is sensed is actually sensed and not imagined. While the head and mind may trick and lead one astray through the imagination, one's body cannot sense or feel anything but the actual state of emotion (Storm Jensen, 2008). The problem often faced concerning feelings is the inability to sense them because one has learned and adopted effective ways to oppress them during childhood (Juul, 2011). This is unfortunate, because what is sensed provides an important indicator and opportunity to investigate whether the contact quality is compromised by the participants' personal challenges.

The Sensethic Approach

As an academic and personal approach to supervision we introduce body-oriented psychotherapeutic research combining "sense" and "ethics," which in the following will be referred to as the "Sensethic³ Approach" (Storm Jensen, 1998, 2002, 2008).

Supervising with the Sensethic Approach aims to establish contact quality in communicative interactions through genuine focused presence. "Sense" refers to a body-related awareness. A characteristic of the approach is it's appreciation of the profound significance of body-related awareness. To make verbal discussions a genuine part of a shared rational reflection on the issue at stake, this reflection must be consistent with sensations; that is, it must be consistent with the realities (including emotional realities) as perceived through basic bodily assessments – sensations and feelings. "Ethic" refers

to genuine participation and authentic contact. Storm Jensen (1998, p. 278) defines this within the therapeutic dialogue/contact:

[B]eing there *with* oneself and *as* oneself but *for* the client. It is thus about concentrated awareness or presence, about honesty or authenticity and that the agenda is unambiguous: the client's needs. (translated from Danish)

Within participatory design genuine participation has been characterized in a similar way where the agenda is not the needs from the client but the goals of the design engagement:

Any user needs to participate willingly as a way of working both *as themselves* (respecting their individual and group's/community's genuine interests) and *with themselves* (being concentrated present in order to sense how they feel about an issue, being open towards reflections on their own opinions), as well as *for the task and the project* (contributing to the achievement of the shared and agreed-upon goals of the design task and design project at hand) (Robertson & Simonsen, 2013, p. 5; see also Luck, 2018; Østergaard et al., 2018).

Genuine participation and authentic contact characterize the well-functioning project meeting that we usually strive to obtain: a meeting where all participants can collaborate and engage in academic reflections in a trustful atmosphere, being present, engaged, and focused. The focus of attention is the content of the project approached by inquisitiveness and reflections, and may, for example, include discussions of the project's focus and research question, relevant literature and theoretical grounding, choice of methods, empirical analysis, design of processes or products, or the contribution or structure of draft chapters, to name a few.

In well-functioning meetings, the participants only experience few or inconsequential personal confusions or challenges. Sometimes, however, the contact quality is compromised because the students or the supervisor experience personal issues and challenges, such as being distracted or inattentive, becoming tense or anxious, or experiencing a feeling of being "wrong." The theory behind the Sensethic Approach identifies *negative self-relations*, contributing to a confusion of perceiving oneself as being wrong, as the underlying core issue causing problematic human contact. In short, negative self-relations mean negative views of or attitudes towards oneself (for a psychological elaboration of the concept of negative self-relations, see Storm Jensen, 1998, 2002, 2008). The Sensethic Approach has origins in humanistic, phenomenological-existential, and body-oriented psychotherapy. The body orientation has its roots in Alexander Lowen's bioenergetics, especially the concept of grounding (Lowen, 1958, 1975). Bioenergetics is rooted in Wilhelm Reich's (1945) vegetotherapy.

While the Sensethic Approach has its origins in psychotherapeutic research and practice, supervising project groups is not meant to be therapy, or in any form to produce engagement in self-realization or a confessional discourse (Nielsen, 2005). Rather, the point is (a) to acknowledge that both students and supervisor sometimes might be personally challenged in ways that compromise open-minded contact and authentic supervision meetings, and (b) to help create and maintain constructive academic meetings and discussions where the participants may dare to fail and be insecure, and at the same time be open about it. This is in line with Feilberg arguing that "the supervisor's willingness for self-reflection is pivotal to the student's opportunity to acquire their own willingness for self-reflection regarding their scientific practice" (2015, p. 43, translated from Danish). The relevance of the Sensethic Approach in supervising project groups is, at least, threefold: First, negative self-relations might explain many of the personal challenges faced by the supervisor and the students (as exemplified in the following sections). Second, these challenges may be characterized and conceptualized by this approach (as demonstrated in the following sections). Third, some body-oriented, concrete, and relatively simple methods or techniques may support the supervisor in alleviating the challenges, and reestablishing a high-quality contact while supervising. As two key examples, we describe below: (1) a basic grounding exercise and (2) a technique to change the focus of the dialogue during a supervision meeting to face a disturbing personal challenge.

Grounding is a physical way to support your body-related awareness by focusing on breathing and sensing the gravitational pull on the body. Grounding may be supported through different concrete bodily and physical grounding exercises. One basic grounding exercise is illustrated in Figure 1. Grounding is a relevant method if the supervisor is challenged, for example, by feeling tension or anxiety compromising his/her contact with the students. In such a challenging state, we are typically restraining our breathing by squeezing the solar plexus and pelvic area, and we "go up" (in our head) and try to act mainly using our cognitive and academic resources. This corresponds to the basic/natural state of vigilance when facing some kind of (imagined or real) threat: protecting the soft vulnerable area of the stomach while staying alert against the perilous threat (ready to flee). The Sensethic Approach to meet such challenges is to "go down" by grounding, because the threat is not real (you are not in any real danger), rather, it is a confused imagination of a threat (Storm Jensen, 1998). Grounding exercises may also be introduced to the students (see Simonsen and Storm Jensen, 2016).

Position yourself with parallel feet, slightly bent knees. Take a deep breath. Let your head fall forward towards the chest, and let the weight of your head slowly drag the upper part of your body downwards until you are hanging down, standing on slightly bent legs with your hands touching the floor (see illustration).

Pay attention to your breathing with a special focus on the exhalation. Breathe using the lower part of your core, exhaling without interruption until you have no more air left. Sense that your upper part of your body is hanging loosely down while your legs are actively carrying the weight of your entire body. Sense the gravity and the contact of your feet with the floor.

After some minutes in this position, slowly rise by, first, pushing your knees forward, then the hip area, stomach, and chest (kind of rolling up the spine vertebrae-by-vertebrae), until you are upright: the front of the body arching forward with the head leaning a little backwards. After a few seconds, by pulling the pelvis backwards and simultaneously raising the head to a vertical position, turn the arch into a relaxed, balanced, upright position. The knees still slightly bent.



Figure 1: Basic grounding exercise. Originally suggested by Lowen (1958; 1977, pp. 11f); elaborated by Olav Storm Jensen.

Grounding can be done in all situations simply by drawing attention toward the sensing of gravity and your weight, whether you are standing or sitting down, and by paying attention to your breathing, especially exhaling without disruption. During a meeting it might be instantly alleviating just being open and expressing verbally that you somehow feel tension; this might again help your grounding. Grounding exercises are not physically difficult to do, and they can be practiced privately at home or at the university in your office or at another private space. If you experience problems being grounded during a meeting, you can ask for a break or just leave the meeting and take a break to do a short grounding exercise (see Figure 1).

The Sensethic Approach offers a simple yet effective technique supporting a supervisor's reaction once he/she senses that the quality of the contact has been compromised. The technique is *stopping* (Simonsen & Storm Jensen, 2016), followed by changing focus and paying attention to what is going on: that is, *from* a current discussion focusing on academic reflection *to* an emerged personal issue that disturbs the discussion. Stopping may be supported by focusing and going *three-times-down*: (1) Down in the *body*, that is, to the level of the senses, as qualified by grounding, assisting bodily presence, for example, by taking a deep breath, exhaling without interruption, paying attention to the feeling of gravity on the body, physically feeling the ground under your feet or bottom (when seated); (2) down in *tempo* (talking slowly), because sensation is a slower function than thinking, so that slowing down in mind and speech supports the cognition of sensed reality; (3) down into the *concrete*. This means breaking down the abstract descriptions, viewpoints, and proposed solutions at stake, into their most concrete appearances and exemplifications, thus making them accessible as material to be sensed and felt. Example

1 and Example 5 below provide a vignette with a simple description of how a supervisor uses stopping and three-times-down.

Example 1 [Stopping and three-times-down]

I [the supervisor] was very excited and enthusiastic when I explained one of my own great research points to the students. Then, I detected that I was talking over their heads and that they looked kind of uncomprehending and hesitant. I stopped myself, took a long breath and said, "OK. I can see that this is a bit abstract; maybe I could explain my point this way instead." I continued speaking much more slowly and by giving a concrete example.

Stopping and investigating the changed focus through a grounded, slow, and concrete approach may be supplemented by sharing what is sensed and observed, for example, by mirroring an observation of a students' behavior (e.g., specific utterance, repeating argument, or speaking quickly and loudly) or appearance (e.g., looking distant, touched, angry, etc.). The point here is to facilitate by mirroring what is seen and by sharing what is sensed. In some cases, it also helps to provide an interpretation (hypotheses) of what might be going on.

MEETING STUDENTS BEING CHALLENGED

Supervision is often characterized as a dual process of 1) supervision on the academic subject and 2) supervision related to the process aspects of the project work, including collaboration in the group and group and supervisor collaboration (e.g., Nielsen & Danielsen, 2012; Andersen & Heilesen, 2015). In this and the following sections, we characterize the latter and focus on situations where the collaboration is challenged by participants experiencing personal issues that may be related to negative self-relations. We also exemplify ways for the supervisor to address and alleviate such situations, thereby supporting a high contact quality.

In this section, we describe and exemplify situations where the supervisor meets students being challenged. When such situations occur, the students often become *distracted*, that is, challenged in ways that prevent them from being authentic, credible, attentive, and present. This might, for example, happen when it is difficult for them to relate a discussion to their own context and situation because it is too abstract or theoretical; see Example 1 given above and Example 2 presented below.

Example 2 [Distracted]

During a supervision meeting, I observe a student kind of "disappear." The student gets this distant look in his eyes where you can see that he mentally has "checked out" of the meeting and its discussion and "gone into" his own private mind somewhere far away. I get the impulse to wave my hands in front of the student and say: "Hello! Where are you? Won't you please come back to us and join our meeting?"

In Examples 1 and 2 the supervisor observes students withdrawing mentally and becoming inattentive. In some cases, the students are unwilling to engage in the meeting for other reasons than being personally challenged (being bored, reflecting on a text that just arrived, having troubles at home, thinking on their partner they're having issues with, etc.). But in other cases, it might be interpreted as students experiencing negative self-relations by perceiving oneself as being wrong because they are not "good enough" to follow the academic discussion and reflection – they feel inadequate and insecure. To shut down emotionally, thereby *disappearing* from any authentic contact with another person, is a common psychological response to (consciously or unconsciously) avoid something that provokes feelings of discomfort, tension, or anxiety.

Students might also become distracted and withdraw if they feel that they are pressured, stressed, or otherwise forced to engage in a discussion. They might also find themselves participating with others who act in dominant, manipulative, patronizing, aggressive, or otherwise unpleasant ways. Example 3 presents a situation where one student patronizes another by providing a *manipulated* conclusion from an earlier meeting (the group had not reached consensus on their focus). The attacked student does not speak up for herself (this requires a certain level of self-confidence) but withdraws, probably because she doubts herself due to low self-esteem.

Example 3 [Manipulating]

When the participants discussed the focus and research question, one of the students in the team was very dominant. When another student started to raise doubt about their focus and mentioned an alternative path, she was interrupted by the dominant student stating "but we did consider this issue; and it was not very perspicacious" The other student fell silent and looked down.

During a meeting, the students (and the supervisor) can participate in an authentic or non-authentic way. Perhaps the easiest way to explain *authenticity* is by discussing its opposite: *pretending*. Being *authentic* simply means not pretending to be anyone else but yourself or being anything else but what you are – not pretending to be knowledgeable about something you do not really know, not acting friendly and accommodating if you really are upset and angry and oppose the issue being proposed, and not acting as if you are informed and certain if you really have doubts about an issue. Example 4 presents a situation with students pretending – and the supervisor's response to this.

Example 4 [Pretending]

At a meeting, I felt a sudden déjà vu from the previous supervision meeting with the same group. Again, they presented a list of all the activities and results they had done and their plans for how to proceed. They took turns presenting and appeared nervous. They had no discussion points or any general questions for me (the supervisor)—just a few more or less formal questions. It felt as if the group was only seeking approval for what they had done. I agreed that their project was on a promising path, and I suggested we should discuss why they had chosen this format for the meeting. It turned out that the group was unsure how to utilize a supervision meeting and that they approached me as a judgmental authority of their project work and, therefore, felt the need to justify/argue for their progression in search of the supervisor's approval.

The students in Example 4 were conducting their initial project in the first semester of their bachelor studies. They were also facing the new situation of having meetings with a supervisor (and a professor). They were nervous about being inferior as newcomers to the university and to project work, and they chose to handle this uncomfortable situation by pretending to be in control and by focusing the meeting on listing past and future project activities. The supervisor sensed their nervousness and intervened by encouraging them to *investigate* why they approached the supervision meeting this way.

When a student becomes challenged, this is sometimes accompanied by the student *speaking faster* or continuing to *repeat an argument* in different ways. This might be an indication that the student is not using his or her ability to sense whether the counterpart is really paying attention to what he/she is trying to communicate; see Example 5.

Example 5 [Repeating Argument]

The discussion among the students became increasingly vociferous as one of the students for the third time repeated his argument for including a specific empirical study as part of the project. I interrupted the discussion: "Let's put this discussion on hold for a minute. I notice that you [the student repeating his argument] insist on including this study but even though you have asked for it several times, the others seemingly resist in including it. I believe the others have heard you, and they disagree. Can we try to investigate why it is so important for you to include it? What is at stake for you?" The student replied: "I just think that making this empirical study is imperative." I paused and then asked slowly, "Could you give a concrete example of the kind of study you would like to do?" After a while it turned out that the student did not feel theoretically strong but loved to engage in more practice-oriented tasks.

In Example 5, including a specific empirical study is apparently crucial for one of the students, but repeating the argument for doing it does not work as a "method" to solve this issue. The supervisor uses stopping to change focus and investigate what is at stake for the student (being afraid that the project does not include a task that the student feels confident making).

In our experience, it is often performance pressure and anxiety that initiate self-relational doubts about being substantially "okay." This may be accompanied by unpleasant feelings of shame and of being inadequate. Performance anxiety might be related to both cases in Examples 4 and 5 given above, and is clearly the case in the following Example 6.

Example 6 [Performance Anxiety].

At the exam start, a student visibly suffers from anxiety, with trembling voice and over-breathing. I looked into his eyes, and explained that I could see he was very nervous and that it was no problem taking some time before beginning. The immediate response was a sigh of relief and I continued: "It will help if you take a deep breath and exhale; and keep exhaling until you have no air left." He accepted the proposal and I supported the student by repeating with a low voice, "and exhale ... exhale." After some quiet breaths the student appeared more relaxed and I asked: "How are you now?" and a little later, "Do you feel ready to start?"

In Example 6 the supervisor chose to re-focus the exam to "what is going on," by meeting the student (eye-contact) and acknowledging (mirroring) the challenge he struggled to

handle: "I can see that you are in trouble and we can try to do something about this before we continue." Over-breathing is a sign of approaching a state of panic, hence the commonly known advice to "take a deep breath." Hyperventilation may be additionally relieved by exhaling without interruptions until the lungs are empty before inhaling.⁴

Meeting a challenged student through eye-contact and mirroring what is observed may help in changing focus to "what is going on." Example 7 provides an example from a supervision meeting with a student being overwhelmed by performance pressure.

Example 7 [Performance pressure]

The masters thesis student sat down and we began the supervision meeting. I noticed that she looked distracted and was appearing short of breath. I looked at her and asked slowly, "How are you doing?" With visible signs of being touched, she said, "I have not come so far as I had hoped." I gave a long, deep sigh, paused, and met her by responding, "I can see you are touched—it must be very difficult for you." We then had a conversation about performance pressure and the risk of stress as part of the masters thesis work.

In a situation such as Example 7, the supervision may include sharing knowledge or experiences on ways to cope with performance pressure (if appropriate) or referring the student to relevant institutional help facilities (if such exist). However, in many cases, just meeting and listening to the student and his/her challenge can result in an instant relief from which a constructive academic reflection and discussion may proceed.

In some cases, the student's performance pressure and anxiety may be sensed by the supervisor in an indirect way and unveiled if the supervisor chooses to investigate what is going on, as illustrated in Example 8.

Example 8 [Performance pressure and anxiety]

I was in charge of a seminar introducing and preparing graduate students for their masters thesis project. I felt frustrated because the students only reluctantly engaged in presenting discussion papers and drafts for their masters thesis research questions. I openly entrusted to them my frustrations and asked for help to clarify what was going on and why the peer-like seminar form was kind of unsuccessful. This unveiled that the students had no prior experiences with this seminar form, and some students openly admitted being afraid, because they did not prepare well enough for their presentation, while others mentioned a fear of me asking them critical questions they could not answer. An open and crucial discussion on how to proceed with the seminar could begin.

Example 8 describes a supervisor being extrovert and explicit, sharing his/her frustrations and challenges with the students. This establishes an agenda for an issue that obviously also affects the students. For the supervisor it involves two steps: (1) taking care of one's own challenges (the opposite of trying to make it disappear by repression); (2) involving the students in taking care of this challenge (inviting co-responsibility). The following section elaborates on the supervisor experiencing his/her own challenges.

EXPERIENCING CHALLENGES AS SUPERVISOR

In this section, we characterize and exemplify situations where the supervisor confronts his or her own personal challenges or experiences issues related to his/her feelings of tension and mental or emotional strain related to negative self-relations. We also exemplify ways for the supervisor to address and alleviate such situations.

In our experience, *tension* is often related to *performance pressure* and *anxiety*. One reason for this might be the supervisor's background, including a high level of education and sustained competitive career path, providing an agelong intensive training for using their intellect and their academic reflections – perhaps at the expense of not developing bodily grounded sensing capabilities. All supervisors have experienced tension and performance pressure. Anyone denying this probably suffers from deep repression. We *face* such challenges when we make disproportionate preparations prior to a meeting or when we feel uncomfortable, disturbed, nervous, or alarmed before entering a group meeting. We *become* challenged if we "pull ourselves together" and with "clenched teeth" enter the meeting room. And we *are* challenged when we are distracted from sensing the students' attitudes/feelings during the meeting or if we choose to put on a mask and pretend, for example, to be knowledgeable in cases where we are, in fact, in doubt. Example 9 describes how this might unfold.

Example 9 [Tension and performance pressure]

I had thoroughly prepared my supervision meeting with many written notes on the 30-page draft from the project group. I hardly noticed that I was tense when the meeting began, but I did notice I got nervous when I started my feedback—and lost my perspective and outline of general vs. more detailed comments. I smiled to the students, disguised my uncertainty, and announced, "well, I will just give you my comments one by one as they appear in my printed draft." Then, I concentrated on giving all my comments. Half an hour later the last comment was given. The students expressed their gratitude and did not have any other immediate questions. When leaving the meeting, I noticed that my voice felt hoarse and overstrained.

The supervisor in Example 9 suppresses the feeling of performance pressure by "going up in the head" (the opposite of grounding), withholding the free breathing through different patterns of muscular tension in the pelvic and stomach region (squeezing the solar plexus and pelvic area), resulting in an exhausted voice. It is very difficult, perhaps impossible, to alleviate being challenged by tension without working on being grounded. Example 10 describes how a supervisor relieves tension by using a simple grounding exercise.

Example 10 [Tension and performance anxiety]

Before meeting the student group, I felt increasingly tense—almost as if I was about to enter a large auditorium scene to give a lecture or present a conference paper. I locked the door to my office and used five minutes in private to perform the basic grounding exercise standing on slightly bent legs with the upper part of my body hanging downwards and paying attention to my breathing (see Figure 1). After this exercise, the tense, almost panic-like mood was replaced with a sigh of relief, and I was ready to meet the students.

Symptoms of tension and being personally challenged by performance pressure or anxiety come in many guises and include situations where the supervisor becomes obsessed with giving comments to the group and thereby not sensing responses from the students (becoming absorbed in one's own performance); sidestepping a complex issue or question from the students (disguising one's own feeling of not being knowledgeable or good enough); defending one's own comments and sternly repudiating critical counterarguments (error-admitting phobia); taking responsibility for the student group and their project (confusing one's own and students' responsibility); feeling nervous "on behalf of" the students, for example, before an oral group exam (suspecting that one was not good enough as a supervisor); or feeling strained, impotent, or fearful when facing a vociferous dispute or an open conflict between the students (nervousness and being on the defensive).

Responsibility confusion is, in our experience, a common symptom often experienced by younger supervisors, such as PhD-students, and it may be a challenge that could take many years to overcome. Example 11 illustrates this confusion and a proper response if the supervisor later acknowledges he/she made a mistake.

Example 11 [Responsibility confused]

When I read my student's project presentation for the mid-term evaluation,⁵ I was shocked and disappointed. Why hadn't they come any further? Why had they not incorporated the comments I gave them at the previous meeting? When the mid-term evaluation began, I felt angry at them but pulled myself together and just asked them in a polite way what happened to my earlier comments? When asking, I realized that my voice reminded me of a whispering snake.

After the mid-term evaluation, I realized that I had been caught up in my own responsibility confusion, being too critical towards the students' work, acting aggressively and disappointed, and without paying attention to the positive results they also had contributed. I sat down at my computer and carefully wrote an email to the group where I apologized and explained how and why I had acted as I did.

The relation of responsibility confusion and performance pressure triggering negative self-relations may be outlined as: If "the students do not perform," then "I am responsible because I do not perform as supervisor." This may trigger a feeling of *being* wrong. The fear of being wrong is established during childhood (Juul, 2011) and early relationships with parents (Storm Jensen, 2002). However, if we realize that we became confused, we can choose to take adequate responsibility for our actions.

Many supervisors have trouble recognizing if they have made a mistake. Just like performance pressure, we have experienced this as a fairly common characteristic of a highly academic lifestyle. We refer to it as *error-admitting phobia*, that is, the fear of having made a mistake and admitting it, which typically triggers the feeling of being wrong. This may well be met with a habitual solution strategy of error-denial, that is, not wanting to acknowledge faults and flaws, as illustrated by Example 12.

Example 12 [Error-admitting phobia]

At the preparatory meeting before the project group exam, the external examiner⁶ raised a substantial critique of the students' choice of methods. I hardly noticed that I got very tense. I started to defend the students' choices, remarked how early they were in their university program, and listed several problematic issues they had struggled with. In my attempt to cope with my feelings of being ashamed, I might have also told a little white lie by saying that I actually did refer to a methodological weakness during my supervision—but I cannot remember if I did. During the exam, it surprised me how well the external examiner presented the critique and that the students constructively accepted it and discussed its implications for their project work.

In Example 12, the negative self-relations resulting in error-admitting phobia were solely experienced by the supervisor. When we feel we are wrong and become anxious about this, we may either turn this inward and start to criticize ourselves ("hammering ourselves on the head") or outward to our opponents *playing the victim* ("It is *your* fault that *I* feel wrong") (Storm Jensen, 1998). Playing the victim represents the opposite of taking responsibility for one's own behavior by projecting the responsibility for the things that have gone wrong onto one's counterpart or blaming him or her for unfair or inappropriate behavior towards you. Example 13 describes a situation where the supervisor receives an email, triggering the fear of being wrong, followed by error-denial and playing the victim, both of which are quite unsuccessful strategies that are attempts to dull the immediate unpleasant symptoms. After a while, the supervisor becomes ready to re-assess the email without being challenged.

Example 13 [Error-admitting phobia and playing the victim]

I was busy and stressed during the start of the semester and responsible for allocating the supervisors to all project groups formed among 120 students. Shortly after completing this difficult task, I got an email from a student: "I understand that you have allocated NN to supervise our group and we would like to stress that we need a supervisor" ... I snapped for breath, stopped reading, and quickly closed the email. For a split second, I got this creeping anxious feeling. Had I made a mistake? Did I have to remake the large allocation puzzle? This feeling immediately transferred into anger towards the students. How did they dare question my allocation! I was just about to write an angry reply (letting them understand who was in charge here) when something made me hesitate and make the sound choice of waiting for my immediate mood to dampen. The day after, I carefully read the email and realized that it was not at all an attack on me but a relevant request for contacting a supervisor with a specific research interest. Then I could write a proper reply without being challenged by feeling wrong.

If we feel attacked and we start defending ourselves (either openly or as a silent conversation in our heads), this often involves error-admitting phobia and playing the victim. As indicated in Example 13, it is introduced by a feeling of anxiety for having made a mistake that makes one wrong. This feeling of anxiety (maybe just briefly experienced or unnoticed by an immediate oppression) may transcend into a protest (anger), projecting the sense of guilt on to a counterpart, who, in this way, is made guilty in one's own challenging situation. It represents clear indications of confusing self-confidence with self-esteem: the confusion of feeling wrong (when nobody, in fact, is) because of what has been done, versus maintaining the belief of being a good person even though regrettable mistakes have been made (which we all do frequently). Posborg expresses the Sensethic focus on distinguishing between being and doing like this: "[Do]

not mistake *doing* something wrong with *being* wrong. It is, as we all know, human to fail—and realizing this is genuine humanity. Making a mistake is not a property of being human, but a human action" (Posborg, 2009a, p. 155, translated from Danish).

If a supervisor only occasionally experiences his/her own challenges, he/she can choose to either ignore, forget, or suppress it – or he/she can choose to be open toward his/her own uncertainties, take responsibility for inappropriate actions made during the meeting, and explain or apologize for mistakes and shortcomings. Admitting a mistake (as illustrated in Examples 11 and 13) might well result in feelings that stem from hostility towards yourself (accusing yourself for being wrong) or towards others (playing the victim) into a relieving compassion, which would be an appropriate feeling toward yourself. However, if one often (or on a regular basis) experiences personal challenges, and this is difficult to deal with, it can be considered as an automated habit of negative self-relation that is worth noticing and reflecting upon – as described in Example 14.

Example 14 [Sustained over-responsibility]

One evening, I confided to an old friend that I always had a bad conscience because I did not spend more time working on my research papers. I blamed all the preparations I had to do for my teaching and supervision and that I always felt so indisposed and tired after preparing, that I had no energy left for my research. She asked me why I always prioritized my teaching: "It's like you eat up all the potatoes first and then you have no appetite left for the dessert." I started to protest: "You don't know how it is—I have to prepare all this before" and then I suddenly became silent. Why did I behave like this? Why did I always make my "duties" first and lose my appetite for any "dessert"? I had no answer to this.

Indicators of this kind, that is, that of often experiencing tension and personal challenges as characterized above are, unfortunately, often ignored, even though they may have serious consequences for health and well-being. They include, for example, if you experience that you usually criticize the students' working effort; if you often are disappointed by their work or even angry at them (thinking "why do they not ..."); if you are over-responsible, and tend to exaggerate your preparation before group meetings and when reviewing student drafts. Emotional symptoms include self-reproach, a bad conscience, and low job satisfaction. These symptoms may well develop into bodily reactions, such as poor sleep or lack of sleep, and chronic fatigue, all of which might indicate *stress symptoms*; see Example 15.

Example 15 [Experiencing stress symptoms]

After a hard day's work, I was really tired and went to bed. I almost fell asleep and maybe I did sleep for some time when I suddenly woke up. I had dreamt I was under accusation for something and that I struggled to defend myself, carefully arguing for my case. I felt drowsy and wanted to get back to sleep but what might have started as a surreal dream evolved into a series of arguments, explanations, and concerns for my upcoming meetings and activities. Even though I was exhausted, I became more and more awake and realized that I would have a hard time getting back to sleep. Then I got frustrated, upset, and angry at myself. Why can't I just go back to sleep? The time was 2 a.m., and I was facing another day of being exhausted.

Indicators of stress symptoms should not be accepted or ignored, as illustrated in Example 16. Rather, they should be used as decisive occasions for actively addressing the personal challenges. One way of doing this is through collegial supervision (Andersen & Bager, 2015). Consistent challenges might also be addressed through other forms of activity: physical grounding exercises, individual supervision, supervision workshops, or therapy. These may last for longer or shorter periods of time (one or a few sessions, sporadic courses or workshops up to a few days length, or year-long regular training programs or courses, including individual or group-based therapy).

Example 16 [Ignoring stress symptoms]

Four weeks of summer holiday. What bliss. It did take me a week or two to really enjoy it and relax from work and thinking about work, but then I enjoyed it to the fullest! The last days of my holiday, I started to feel restless and during the night before my first day back at work, I woke up fatigued and worried. I knew from experience that this had happened during earlier holidays, and that I just needed to pull myself together and get back to work. After some days, I would accommodate, get back into the routines, and stop feeling so discouraged that the holidays were over.

CONCLUSION

Supervising project groups principally comprises supervision on the academic subjects involved in the student's project work. The context of supervising project groups is constituted by processes of communicative interactions, collaboration, and social dynamics involving contact among all participants. As demonstrated in our examples, this often involves challenges due to the students – or the supervisor – experiencing personal issues that interfere with the aim of maintaining a constructive focus on academic reflections. This is why we suggest an academic *and* personal approach to supervision. Our point is to acknowledge that we regularly face personal issues that compromise the quality of the contact relationship. Our aim is to exemplify, clarify, and characterize problematic situations, as well as to understand, conceptualize, and provide some help regarding how to act upon these situations.

Indicators of emerging and disturbing personal issues include speaking faster or continuing to repeat an argument in different ways (as an unsuccessful attempt to communicate), longer or frequent periods of silence (as a result of anxiety, e.g., towards the supervisor as an authority), a student being withdrawn or showing signs of sadness (feeling inadequate and "wrong"), students dropping passive aggressive hints towards each other (manipulating), or blaming each other (playing the man instead of the ball). The existence of such group dynamics is a widespread phenomenon. In some cases, the project group chooses to hide it from the supervisor. In other cases, the supervisor might observe or sense such dynamics during a meeting. This allows the supervisor to choose to either take responsibility and intervene, or to resign and leave this challenge up to the students alone. If resignation is chosen, this may be accompanied by a feeling of

discomfort and being powerless towards the group dynamic. Choosing to intervene may change the focus from "what we try to do now" to "what is going on now," with the aim of establishing an agenda of investigating what is at stake – right then and there in the meeting. The goal of this intervention is to re-establish the students' engagement in becoming authentic, credible, attentive, and present. Pursuing and changing focus requires that the supervisor observes and recognizes the students' challenges and is willing to intervene. The supervisor's senses play an important part; his/her body can sense when the contact quality is compromised before it is understood with the mind. For example, the supervisor might sense that something seems "wrong," when facing a (perhaps uncomfortable) situation that does not align well with the intended meeting taking place. We have exemplified and proposed a number of concepts to support investigations and reflections on "what is going on now," including tension, being distracted, disappearing, pretending, authenticity, manipulating, repeating the argument, responsibility confusion, error-admitting phobia, playing the victim, performance pressure and anxiety, and distinguishing between being and doing.

Being able to pay attention to body signals (i.e., sensing and feeling) is the prerequisite for investigating personal challenges with the mind – to reflect on and understand them and take them seriously by reacting appropriately (Storm Jensen, 1998, 2002, 2008). This is the case both when meeting students being challenged and when the supervisor experiences his/her own challenges.

Our body-oriented psychotherapeutic research and the Sensethic Approach identifies negative self-relations as a key contributor to causing problematic human contact (Storm Jensen, 1998, 2002, 2008). For the supervisor this is often manifested as a challenge related to performance pressure and the underlying performance anxiety. This anxiety is rooted in—and driven by—a confusion between being and doing: I observe something (for example a student looking bored; losing overview during my presentation; meeting a counter argument that questions my claim or case; etc.). I interpret the observation and makes it my responsibility to "solve" it. If I do not solve it, I fail and I am "wrong." Then it gets really dangerous, as I am questioning not only my actions (doing), but also if I am good enough (as a human being). Negative self-relations might result in endless speculations, over-responsibility, and work, because now my self-esteem is at stake! In addition, this may manifest reaction patterns as error-admitting phobia and playing the victim to avoid taking 100% responsibility for performing a wrong action and hereby protecting against the perception of being wrong. The confusion of doing and being points to where there is a choice and where there is not a choice. If one "can sense, that one is unrestful and anxious, then these are the feelings one has: They are an expression of one's existence [here and now] that must be accepted. On the other hand, one may choose how to act [doing], that is, how one responds to oneself and one's feelings" (Posborg, 2009a p. 151, translated from Danish). Taking responsibility for one's own mistakes (doing) without compromising one's own being (that is, being confident that "I am still a good person even though I made a mistake, and I can take responsibility and take action to correct my wrongdoings") is to acknowledge the premise that our basic intentions are always good, but also that we may fail in trying to act according to these intentions.

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References

- Andersen, A. S., & Heilesen, S. B. (Eds.). (2015). *The Roskilde Model: Problem-oriented learning and project work*. Springer. https://doi.org/https://doi.org/10.1007/978-3-319-09716-9
- Andersen, A. S., & Dupont, S. (2015). Supervising projects. In A. S. Anderson and S. B. Heilesen (Eds.), *The Roskilde Model: Problem-oriented learning and project work* (pp. 121–139). Springer. https://doi.org/10.1007/978-3-319-09716-9_8
- Andersen, H. L., & Bager, L. T. (2015). Collegial supervision. In J. Dolin, G. H. Ingerslev, P. S. Jørgensen, & L. Rienecker (Eds.), *University teaching and learning* (pp. 433–444). Samfundslitteratur. https://samfundslitteratur.dk/bog/university-teaching-and-learning

- Andrews, B., Bardzell, S., Clement, A., D'Andrea, V., Hakken, D., Poderi, G., Simonsen, J., & Teli, M. (2014). *Teaching participatory design*. In H. Winschiers-Theophilus, V. D'Andrea, & O. S. Iversen (Eds.), Proceedings of the 13th biennial participatory design conference, PDC 2014, Windhoek, Namibia, October 6–10, 2014: Reflecting connectedness, (pp. 203–204). ACM Press. https://doi.org/10.1145/2662155.2662202
- Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university*. Open University Press/McGraw-Hill Education.

 https://www.mheducation.co.uk/teaching-for-quality-learning-at-university-9780335242757-emea-group
- Coelho, C. (2014). Facilitating facilitators to facilitate, in problem or enquiry based learning sessions. *Journal of Problem Based Learning in Higher Education*, 2(1), 4–10. https://eric.ed.gov/?id=EJ1108359
- Feilberg, C. (2015). Selvrefleksion som uddannelsesgreb–en kritisk diskussion [Self-reflection as an educational tool a critical discussion]. *Nordisk Udkast*, *43*(2), 42–61. http://nordiskeudkast.dk/?page_id=158
- Fehmerling, H. (2009). Supervision. In R. Posborg, K. Hoff, & H. Antczak (Eds.), Socialrådgivning og socialt arbejde - En grundbog [Social counseling and social work - a textbook] (pp. 557–577). Hans Reitzels Forlag. https://hansreitzel.dk/products/socialradgivning-og-socialt-arbejde-bog-47459-9788741264127
- Jensen, A. A., Stentoft, D., & Ravn, O. (Eds.). (2019). *Interdisciplinarity and problem-based learning in higher education research and perspectives from Aalborg University*. Springer. https://doi.org/10.1007/978-3-030-18842-9
- Juul, J. (2011). *Your competent child: Toward a new paradigm in parenting and education*. Familylab. https://www.familylab.at/start/media-archive/literatur/buecher/item/your-competent-child-3
- Lachowsky, N. J., & Murray, J. (2021). Group processing: Students reflections on the experience and impact of group processing. *Journal of Problem Based Learning in Higher Education*. https://130.225.53.24/index.php/pbl/article/download/2883/5634
- Laurillard, D. (2002). *Rethinking university teaching. A conversational framework for the effective use of learning technologies*. RoutledgeFalmer. https://www.routledge.com/Rethinking-University-Teaching-A-Conversational-Framework-for-the-Effective/Laurillard/p/book/9780415256797
- Lowen, A. (1958). The language of the body. Grune & Stratton.
- Lowen, A. (1975). Bioenergetics: The revolutionary therapy that uses the language of the body to heal the problems of the mind. Putnam Adult.
- Lowen, A., & Lowen, L. (1977). The way to vibrant health A manual of biogenergetic exercises. Harper & Row.

- Luck, R. (2018). What is it that makes participation in design participatory design. *Design Studies*, *59*, 1–8. https://doi.org/10.1016/j.destud.2018.10.002
- Macfadyen, A., English, C., Kelleher, M., Coates, M., Cameron, C., & Gibson, V. (2019). "Am I doing it right?" Conceptualising the practice of supervising master's dissertation students. *Higher Education Research & Development*, *38*(5), 985–1000. https://doi.org/10.1080/07294360.2019.1597024
- Murray-Harvey, R., Pourshafie, T., & Reyes, W. S. (2013). What teacher education students learn about collaboration from problem-based learning. *Journal of Problem Based Learning in Higher Education*, *1*, 114–134. https://discurso.aau.dk/index.php/pbl/article/download/278/205
- Nielsen, J. L., & Danielsen, O. (2012). Problem-oriented project studies: The role of the teacher as supervisor for the study group in its learning processes. In L. Dirckinck-Holmfeld, V. Hodgson, & D. McConnell (Eds.), *Exploring the theory, pedagogy and practice of networked learning* (pp. 257–272). Springer. https://doi.org/10.1007/978-1-4614-0496-5_15
- Nielsen, K. (2005). Frelserpædagogik og selvrealisering moderne bekendelsesformer i dansk pædagogik [Savior pedagogy and self-realization modern forms of confession in Danish pedagogy]. In S. Brinkmand & C. Eriksen (Eds.), Selvrealisering kritiske diskussioner af en grænseløs udviklingskultur [Self-realization critical discussions of a boundless development culture] (pp. 65–88). Klim. https://klim.dk/bog/selvrealisering.htm#
- Reich, W. (1945). Character analysis [Original reference: Charakteranalyse technik und gundlagen, 1933, Selbstverlag, Wien, translated by Vincent R. Carfagno]. Farrar, Straus and Giroux.
- Posborg, R. (2009a). Personlige kompetencer i socialrådgivning [Personal competencies within social work]. In R. Posborg, K. Hoff, & H. Antezak (Eds.), Socialrådgivning og socialt arbejde En grundbog [Social counseling and social work a textbook] (pp. 145–163). Hans Reitzels Forlag. https://hansreitzel.dk/products/socialradgivning-og-socialt-arbejde-bog-47459-9788741264127
- Posborg, R. (2009b). Socialrådgiversamtaler om praktiske samtalefærdigheder [Social worker conversations about practical conversation skills]. In R. Posborg, K. Hoff, & H. Antczak (Eds.), Socialrådgivning og socialt arbejde En grundbog [Social counseling and social work a textbook] (pp. 195–220). Hans Reitzels Forlag. https://hansreitzel.dk/products/socialradgivning-og-socialt-arbejde-bog-47459-9788741264127
- Robertson, T., & Simonsen, J. (2013). Participatory design: An introduction. In J. Simonsen & T. Robertson (Eds.), *Routledge international handbook of participatory design* (pp. 1–18). Routledge. https://www.routledge.com/Routledge-International-Handbook-of-Participatory-Design/Simonsen-Robertson/p/book/9780415694407

- Simonsen, J., & Storm Jensen, O. (2015). *Contact quality in Participation*. In J. Saad-Sulonen, K. Halskov, L. Huybrechts, J. Vines, E. Eriksson, & H. Karasti (Eds.), Position paper presented at the workshop Unfolding Participation. What do we mean by participation conceptually and in practice, held at the fifth decennial Aarhus conference, Critical Alternatives, August 17th, 2015. https://pit.au.dk/fileadmin/www.pit.au.dk/CameraReady_Aarhus2015WS_UnfoldingParticipation_formatted.pdf
- Simonsen, J., & Friberg, K. (2014). Collective Analysis of Qualitative Data. In J. Simonsen, C. Svabo, S. M. Strandvad, K. Samson, M. Hertzum, & O. E. Hansen (Eds.), *Situated design methods* (pp. 99–117). MIT Press. https://mitpress.mit.edu/books/situated-design-methods
- Simonsen, J., & Storm Jensen, O. (2016). *Contact quality in participation: A* "sensethic" perspective. In R. C. Smith & A. M. Kanstrup (Eds.), Proceedings of the 14th Participatory Design Conference, August 15–19, 2016, Aarhus, Denmark: Participatory design in an era of participation, II (pp. 45–48). ACM Press. http://dl.acm.org/citation.cfm?doid=2948076
- Storm Jensen, O. (1998). Psykoterapeutens autenticitet terapiens afgørende led. Om at tage 'at tage klienten alvorligt' alvorligt nok [The authenticity of the psychotherapist— The critical element of psychotherapy. On taking "taking the client seriously" seriously enough. Including English summary]. *Psyke & Logos*, 19, 271–286. http://www.sensetik.dk/psykoterapeutens_autenticitet
- Storm Jensen, O. (2002). Krop, selv og virkelighed Skal vi snakke om selvet eller være os selv? [Body, self and reality Should we talk about the self or be ourselves?]. In P. Bertelsen, M. Hermansen, & J. Tønnesvang (Eds.), *Vinkler på selvet En antologi om selvbegrebets anvendelse i psykologien* (pp. 119–146). Klim. http://www.sensetik.dk/krop_selv_og_virkelighed
- Storm Jensen, O. (2008). Evidens og relevans. Videnskabelighed i psykoterapi: 'Evidensbaseret praksis' eller saglig menneskelighed? [Evidence and relevance—Scientific quality in psychotherapy: 'Evidence based practice' or relevant humanism? Including English summary]. *Psyke og Logos*, 29, 152–176. http://www.sensetik.dk/evidensogrelevans
- Weicher, I., & Laursen, P. F. (Eds.). (2003). Person og profession: en udfordring for socialrådgivere, sygeplejersker, lærere og pædagoger [Person and profession: A challenge for social workers, nurses, teachers and educators]. Billesø & Baltzer. https://bibliotek.dk/da/work/870970-basis%3A24459802
- Woolhouse, M. (2002). Supervising dissertation projects: Expectations of supervisors and students. *Innovations in Education and Teaching International*, *39*(2), 137–144. https://uhra.herts.ac.uk/bitstream/handle/2299/182/100396.pdf?sequence=1&isAll

owed=n

Østergaard, K. L., Simonsen, J., & Karasti, H. (2018). Examining situated design practices: Nurses' transformations towards genuine participation. *Design Studies*, 59, 37–57. https://doi.org/10.1016/j.destud.2017.12.002

¹ According to the Danish Ministerial Order on the PhD Program, the PhD student may be charged with up to 840 hours of teaching obligations. At Roskilde University, a majority of this teaching is typically allocated to supervising project groups.

² Abductive reasoning refers to a process of suggesting and stating hypotheses explaining problems, as well as suggesting possible ways to solve them. This type of reasoning is especially relevant during design-oriented project work; see, for example, Simonsen and Friberg (2014).

³ In Danish: "Sensetik" is a name that includes the duplicate meaning of being a general term for studies based on sensations (and sense), as well as an indication of the finding that ethics, values in human relations, are based on bodily, emotional sensations (sensetik.dk).

⁴ Over-breathing using the upper part of the lungs might feel like one is missing oxygen. Physiologically, it is rather a sign of one missing carbon dioxide. This can be relieved by exhaling and emptying the lungs and then pausing to inhale until one needs air. Panic-like hyperventilation may stimulate anxiety and protest anger.

⁵ Mid-term evaluation at Roskilde University is done when the project groups are approximately half-way through the project. The evaluation is conducted as a peer-review where two project groups and their supervisors meet and comment on each other's project and project status.

⁶ Many exams in Denmark must be conducted in the presence of an external examiner appointed by the Ministry of Higher Education and Science. The role of the external examiner is to ensure that the examination takes place in accordance with set goals and requirements and that the student receives a fair and impartial assessment and grade.