

Closer to and further away – emergency-remote teacher education, orientations and student-bodies

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This paper contributes knowledge on the effects of materiality and space on teaching and equal access to teacher education. Through an intersectional analysis, with a specific focus on orientations, bodies and materiality, we show how student-bodies orientate closer to or further from various parts of teacher education as an effect of the materiality of emergency-remote vs. on-campus education. We elaborate on three different student-body orientating processes that take place during teacher education. These are all related to the emergency-remote education implemented as a consequence of the COVID-19 pandemic. We call these processes ‘remote education as relief’, ‘the embodiedness of raising the hand on Zoom’ and ‘energy-draining pre-recorded lectures’. We show how the materiality of emergency-remote education orientates the participants situated within the bodily horizons of intersectional positions of being deaf, female, racialized as non-white and not having Swedish as a first language, both closer to and further away from various parts of their teacher education. The analysis is based on both individual and group interviews with twelve teacher students. The paper contributes insights to emergency-remote education, remote education and on-campus educating.

Keywords: emergency remote education, teacher education, materiality, embodiment, intersectionality

INTRODUCTION

Bodies in educational contexts have often been ignored or seen as problematic (Estola & Elbaz-Luwisch, 2003). In online education, the risk is even greater that the understanding of teachers and students as embodied subjects will be set aside or neglected (Brabazon, 2002, p. 103), even though such education is highly embodied. Analyzing on-campus and remote education as embodied practices, entangled with the materiality of educational spaces, might make it possible to recognize details and nuances of the processes of teaching and learning that may otherwise stay undetected, i.e., “you never will get to the complexity of ‘the matter’ unless you keep the body in mind” (Juelskjær et al., 2008, p. 7). Moreover, focussing on bodies and materiality in educational research “has the potential to challenge the liberal notion of the self-contained individual which is widely held in education and to address issues of change and transformation in classrooms” (Mulcahy, 2012, p. 10). In other words, this focus can acknowledge how, in education, we are always in relation to and in multiplicity with other human and non-human bodies such as students, teachers, university organizations, campus buildings, viruses that may enter our bodies, the air we breathe and exchange between the lungs of different people, computers, cameras, the rooms we organize to show particular parts of ourselves on the screens, and technical solutions that bring us together or move us further away from each other. As Astrida Neimanis puts it, referring to Maurice Merleau-Ponty, bodies emerge “from various debts and

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connections to other bodies, whereby bodies are always chiasmically entwined with the world” (2017, p. 43).

This study focusses on the embodied situatedness of teacher students at Swedish universities and discusses the entanglement of bodies and materiality in emergency-remote education. Furthermore, it highlights unequal outcomes of the pandemic in higher education through the lens of orientations. Sara Ahmed leans on a queer, feminist and anti-racist phenomenology when stating that “[t]o think with orientations is to think of how we are involved in worlds” (2014, p. 95). This paper investigates teacher education, and we show how this seems both to be and not be in reach for the participating students’ bodily horizons. Ahmed defines bodily horizon as “a space for action, *which puts some objects and not others in reach.*” (2006, p. 66, italics in original). The teacher education is here to be understood as a knot of materiality; where the material is active, “it makes us swerve, it trips us; it is a knot of the textual, technical, mythic/oneiric, organic, political, and economic” (Haraway, 1994, p. 63). The knot of materiality coming together in teacher education contains, for example, cameras, campus buildings, course literature, curricula, digital software, faculty, learning, participation, pre-recorded lectures, student-bodies, teacher-bodies, and teaching. We understand these parts of education as fluid, moving closer to or further from each other.

In mid-March 2020, during the COVID-19 pandemic, Swedish universities went into distance mode following a recommendation from the Public Health Agency of Sweden, which meant that all teaching and research was to be conducted online, if possible. This move to distance education happened during a crisis as the least bad way of dealing with a threatening situation. In addition to the challenges of sudden online education, students and teachers have been affected by the ongoing pandemic in their everyday lives, for example being worried about loved ones, themselves and society. Drawing on intersectional theories, Yingqin Zheng and Geoff Walsham argue that the pandemic has led to the amplification of already existing societal structural inequality when it comes to, for example, racialization and class (2021, pp. 2–3). Both students and teachers have had differing situations and preconditions which have made the experience easier or more difficult. Here we take a closer look at student experiences.

PREVIOUS RESEARCH

Some studies have explored the pandemic’s psychological impact on students and have shown, for example, how emergency-remote education has led to increased anxiety and worries for students at an HBCU (Historically Black College and University) in the United States (Kee, 2021). Some studies also link increased anxiety with inequality. One study, in which the majority of the respondents were undergraduate students in the northeastern United States, showed that students of colour and female students experienced poorer emotional well-being than white and male students (Clabaugh et al., 2021). Another study from the United States confirms these results and shows that female, non-white and first-generation students experience higher levels of worry related to, for example, finances and access to medical care (Gillis & Krull, 2020). These groups also tend to have less access to dedicated workspaces, which can make remote learning more difficult.

Despite the aforementioned studies, there is a gap in knowledge when it comes to qualitative studies that look into the more complex processes that engender students’ experiences during remote education. These are the experiences of students who faced discrimination based on, for example, race, dis/ability and gender, long before emergency-remote education was initiated.

AIM

The overall aim of this paper is to contribute to knowledge about the effects of materiality and space on teaching and equal access to teacher education. This is done through an intersectional analysis of accounts from students who experienced both on-campus education and emergency-remote education, with a specific focus on orientations, bodies and materiality. The paper contributes insights to emergency-remote education, remote education and on-campus education. The research question that we examine is:

How are student-bodies orientated closer to or further away from teacher education as an effect of the materiality of emergency-remote vs. on-campus education?

THEORETICAL THINKING TECHNOLOGIES

In this article, we use a combination of feminist phenomenology and feminist posthumanism (see Neimanis, 2017) with intersectionality (Hill Collins, 2019). Patricia Hill Collins, among others, has pointed out how intersectionality contributes to an analysis of how societal power structures form social realities and how “the connectedness of different systems of power has proven to be an important one for theorizing power relations and political identities” (2019, p. 30). Here, an intersectional identity is understood as a process, rather than a stable category, where the focus is on structures that connect to individual experiences, where “[t]he social location of individuals and groups within intersecting power relations shapes their experiences within and perspectives on the social world” (Hill Collins, 2019). Further, Heidi Safia Mirza has shown that the ontology of intersectionality can be useful in understanding the embodied experiences of higher education students, who are “simultaneously positioned in multiple structures of dominance and power as gendered, raced, classed, colonized, and sexualized ‘others’” (2018, p. 2).

The idea of body and materiality as entangled is used in the aforementioned theories of feminist phenomenology and feminist posthumanism, which will be used in the present study. Michalinos Zembylas shows how “[t]he implications of exploring the interconnections among bodies, emotions and classrooms invite us to consider the radical possibilities of understanding teaching and learning as a landscape of bodies, utterances, spaces and texts” (2007, p. 65). For Ahmed, spaces and bodies are inseparable; thus, “spaces are like a second skin that unfolds in the folds of the body” (2006, p. 9). Here, we follow the idea of spaces as material, where power in an intersectional understanding is produced not only through social interaction, but also, as described by Karen Barad, in relation to intra-acting materiality, where both human and non-human actors are considered to be agential (2007, p. 66). Jasbir K. Puar, following Barad, states that “matter is not a ‘thing’ but a doing” (2012, p. 57).

With the support of the concept of orientations, it is possible to study closeness and connections to objects (Ahmed, 2010, p. 24), where neither the objects nor the orientated bodies are neutral but are accompanied by their values (Ahmed, 2010, p. 34). To be orientated is to feel at home. It is a state in which a body is able to move smoothly and extend into a space, a state that might pass unnoticed. When we are disorientated, in contrast, we might notice the lack of orientation (Ahmed, 2006, pp. 5–6). Sometimes, bodies might feel disorientated, even where they are given a place (Ahmed, 2006, pp. 11–12), i.e., “when bodies are ‘here’, but are not presumed to belong here; bodies can be strangers in places they call home” (Ahmed, 2014, pp. 95–96). Education itself can be defined as an “orientation device” (Ahmed, 2010, p. 54). An example of this is when a student is formally admitted to an educational programme, but still feels “out of place” due to somatic norms.

Combining an intersectional theoretical approach with the aforementioned idea of body and materiality could, in practice, be facilitated by the concept of somatic norms. Somatic norms are the sometimes invisible structures that saturate our everyday lives. According to Nirmal Puwar, somatic norms manifest in how certain bodies historically and repeatedly have been associated with certain spaces (2004, p. 8). One example is how the space of higher education is coupled with the bodies of white able-bodied, middle or upper-class men, where others have historically been excluded from these spaces. Ahmed accounts for the normative while stating that “the normative can be considered an effect of the repetition of bodily actions over time” (2006, p. 66). Even when these repetitions change, such as in higher education, where others are now formally allowed to enter, and at times may even numerically dominate in the space, the somatic norms still operate, but in more subtle ways.

METHOD

The participants of the present study were recruited through visits at universities, social media and emails. The first author (EÅ) made fifteen visits in teacher education classes at three universities to present the project. Through these visits, about 500 students were reached. More visits were planned when the COVID-19 pandemic made the universities go into remote mode. An announcement about the project was posted in about ten Facebook groups (mostly groups related to being a teacher student), and emails were sent to 17 student groups/organizations (for example gathering LGBTQ students). The announcement that was spread through posters, social media, emails and visits declared, for example, that the project was looking for teacher students who themselves identified as breaking norms, such as heteronormativity, norms of whiteness or norms related to functionality (dis/ability), or as interested in talking about such norms. The information also gave some concrete examples on what limiting norms in an educational setting might look like. Twelve students who self-identify as breaking norms set by an intersectional power dynamic, or who were interested in talking about these norms, ended up as participants of the study.

One unexpected aspect of the stories told by some of the students was their reactions and emotional responses to the emergency-remote teaching they were subjected to during this period. This aspect, which was not initially a focus of the project, is at the center of the present paper.

Individual interviews with the participants took place during March and April 2020, followed by two group interviews in December 2020, where in total six participants chose to participate. The individual interviews focussed on the participant experiences when it came to intersectional norms and feelings related to this, while the group interviews were based on excerpts from the individual interviews. The individual interviews were between one and one-and-a-half hours long, while the group interviews were two hours each. Four students participated in one group interview, and two students in the other. The group interviews took place as organized dialogues based on excerpts from the individual interviews. Ten of the individual interviews, and both group interviews, took place online as a consequence of the COVID-19 pandemic. The project was approved by the Swedish Ethical Review Authority.¹ The pronouns, names and terms used to describe the participants have been chosen by the participants themselves. The participants' identities are described in the analysis in relation to where it is relevant. The participants were all studying teacher education at the time of the interviews.

¹ Swedish Ethical Review Authority (Ref. No. 2019-05252).

The interviews were recorded and transcribed. Thematic analysis was used to analyze the transcriptions of the interviews. Thematic analysis is, according to Braun and Clarke, a tool for “identifying, analyzing and reporting patterns” (2006, p. 79), where the researcher is to be seen as a producer of themes, sculpturing the data. Emergency-remote education was not an initial focus of the larger research project, but something that was detected as relevant when analyzing the material. Because of this, no particular questions were asked about the emergency-remote education, nor about the participants’ earlier experiences of remote education. The examples and extracts chosen for discussion in this paper come from narratives from five of the participants. The analysis as a whole builds on what was said in both the group interviews and the individual interviews. All excerpts but one are taken from the group interviews. The excerpts in focus were chosen because they touched upon the emergency-remote education and compared it to on-campus education.

ORIENTATING PROCESSES

Below, we elaborate on three different student-body orientating processes that take place during teacher education. These are all related to the emergency-remote education implemented as a consequence of the COVID-19 pandemic. We call these processes, ‘remote education as relief’, ‘the embodiedness of raising the hand on Zoom’ and ‘energy-draining pre-recorded lectures’. We show how these processes are set in motion through the bodily and material presences in various situations. In other words, we show how the student-bodies are orientated closer to or further away from various parts of the teacher education, on account of entanglement with other bodies and materiality within the educational spaces.

Remote education as relief

For several of the participants in this study, everyday life in higher education is associated with such phenomena as stressful situations, exclusion, harassment, emotional work and internal negotiations, together with efforts to inform and educate others on, for example, their own identities or needs and social justice issues. These activities are related to the participants’ bodily horizons of situatedness as inhabiting minority positions within the education, and/or their engagement in social justice issues. One example of this is to be found in Noura’s narrative. Noura’s experience of teacher education has been affected by somatic norms of whiteness. Noura migrated to Sweden from a North African country approximately ten years ago, and Swedish is not her first language. She is racialized as non-white, and she wears a hijab.² Noura had heard from others that there was a norm of whiteness at her university before she started there. Others had recommended that she go instead to another nearby university that is known to be more diverse. Noura decided not to do so, and in relation to this she describes herself as “someone who dares.” Now, Noura sees it as her mission to challenge the norms of whiteness in each course she takes.

Noura has not felt comfortable during on-campus education. She experiences norms of whiteness through a homogenic faculty and a lack of social belonging among her classmates. The homogeneity of the faculty can be interpreted as confirming that the institutional space is repeating how some bodies are able to pass, and others are not. Ahmed states that repetition is not about a simple body count. “Rather what is repeated is the very style of embodiment, a way of inhabiting space, which claims space *by the accumulation of gestures of ‘sinking’ into that space.*”

² Note that the descriptions of the participants below were chosen by themselves, both spontaneously and when asked. However, in the text, we only mention identity categories that are relevant for the issue in question.

(Ahmed, 2006, p. 136, italics in original). Having the possibility to sink into a space may enable one to feel comfortable: this is where a body inhabits a space with ease (Ahmed, 2006, p. 134). Noura is missing this ease and comfort during her on-campus education, since she is not passing through the white space.

Noura describes her situation as one in which she simultaneously struggles with the content of the courses and the social aspects of the education. She describes the class as divided into informal groups, and mentions that she is stuck in a “middle position.” Additionally, she has experienced explicit exclusion in the social environment, and there have been situations where she felt as if she was not going to make it. She explains that she feels as if she does not belong, and that this has been a terribly heavy burden. Instead of being thrown into despair, however, Noura states that she knows that she is a good student, and that this is her strength. When the teacher education went remote, Noura felt that this was relatively comfortable: she does not miss being on the university campus, and she is coping. Noura says: “So it feels, yes, you don’t have to struggle all the time, kind of [...], but I only have to relax, and I am performing well.” (Noura, Pos. 144).

Other participants describe similar feelings of relief when their education entered remote mode. Petra, who is a heterosexual cis³ woman, is taking teacher education to become a physical education teacher. She shares that she is not on campus more than she has to be, and says that the environment is loud and macho (Swe. *grabbig*), where people shout at each other a lot. According to Petra, the programme has had “700 group projects,” where the boys have not done anything, and girls have had to take responsibility and lead the project. She describes the environment as stereotypical in every sense possible, permeated by heteronormativity. There is a permanent, unquestioned division between boys and girls when it comes to such issues as the physical environment of changing rooms. She gives examples of sexist comments made by male students to female students during swimming practice, and tells how a teacher in class stated the fact that boys are better than girls when it comes to sports involving balls. Petra describes her experience of the remote mode like this:

Excerpt 1.

But, I really feel the feeling of like, not having to meet these people who just scream and yell and just live a totally different life somehow. Ehm, who are very hard to, kind of, answer to or, meet, or talk to, in a sensible way. I have also had very many group projects. Or only a lot of group projects, where you were never allowed to choose your group by yourself. And to kind of always have to stand up for these things, to be this “good student”, who reads, the good one who has any kind of structure and does something. It has been really nice, just not having to meet, IRL, hehe. (Group interview 1, Pos. 105)

For Petra, the transition to remote education creates relaxation. She says that it has been tremendously nice to avoid seeing “these people” who are her classmates. One interpretation of this is that she feels relief to be away from, for example, the on-campus loud and somatic norms of masculinity, heteronormativity and cisnormativity that shape the spatial experience of on-campus education, and that are not present in the remote mode.

³ Cisgender is defined by Merriam Webster Dictionary as “relating to, or being a person whose gender identity corresponds with the sex the person had or was identified as having at birth” (cisgender, 2022). In. (2022). *Merriam Webster Dictionary*. Retrieved March 21, 2022, from <https://www.merriam-webster.com/dictionary/cisgender>

These two examples, from Noura and Petra, indicate a paradoxical movement of bodies and materiality, a flow that is initiated by the introduction of emergency-remote education. Noura gains respite from the social environment of her education, and she does not have to struggle all the time. She can now relax and “perform well,” which can be interpreted as meaning that she can focus solely on the learning process – on her studies. Petra expresses that it feels really pleasant not to have to meet people, and not to have to be the person who takes responsibility in groups when no one else does. Leaning on Barad’s (2003) idea of materiality and bodies as intra-acting in a never-ending process of increase and decrease of agency, we can understand these processes as composed of a multitude of bodily and material activities. As Barad puts it: “The world is an ongoing open process of mattering through which ‘mattering’ itself acquires meaning and form in the realization of different agential possibilities.” (2003, p. 817). In this case, the material shaping of the production of agency, i.e., the bodily relaxation and the experienced respite, consists of the cables that transport internet connections, the radio frequencies that transport signals between devices, computer screens, and hardware, together with the myriad of programming languages that make online communication possible. This materiality, together with the teacher-bodies and student-bodies positioned mainly in their homes, creates a form of student-body-agency in the remote mode of education that differs from the on-campus experience. The paradoxical process occurs when the student-bodies, due to the emergency-remote mode of the education, are directed away from the traditional physical space of the university – campuses, classrooms, assembly halls, swimming halls, changing rooms, cafeterias and libraries. This redirection creates, in turn, an opportunity to orientate towards other parts of the education. In this mode, a space unfolds in which the student-bodies can feel a relaxation that may facilitate learning and participation.

Ahmed claims, in the spirit of phenomenology, that what we are orientated towards needs to be other than us (2006, p. 115). With support from Barad’s posthumanist approach of intra-activity, where “[h]umans are part of the world-body space in its dynamic structuration” (2007, pp. 170–171), we would rather suggest that orientation is possible because of how bodies, as multiple subjects, are in constant flow with materiality. In this case, we might understand how the body is extending while orientating towards other parts of the education, and how this happens in a non-stable process, where this orientation might simply be a momentary snapshot of extension into the educational space. We further elaborate on the mobility and possibly transitory nature of the orientation with an example from the interview with Naima.

In on-campus education, Naima, who describes herself as a working-class woman racialized as non-white, has been struggling with countless stressful situations, where she finds it necessary to educate others, both teachers and students, on such issues as social justice and anti-racism. This has created fatigue and a constant negotiation as to whether she should speak up or stay silent in various situations. When it comes to the emergency-remote education, Naima shares a similar experience of relaxation as Petra and Noura, but she also expresses something else.

Excerpt 2.

But I thought in the beginning, just when they said that we were going to distance I said “Yes!”, that is, it was so nice not to have to meet people. But now I miss being in a... well it is mostly that one wants to be somewhere else. I have back pain, I can’t take sitting at the kitchen table. But it has been nice to get out, but, and I don’t know, maybe see others now also. (Group interview 1, Pos. 121)

For Naima, the experience of emergency-remote education has changed over time. Initially, the feeling of relief was palpable, when she could avoid meeting the teachers and other students. However, as time passed (at the time of the interview, she had had nine months of emergency-remote education), she got tired of remote education in two ways. First, Naima describes how remote education forces her to sit and work at her kitchen table, which causes bodily pain. The lack of a proper home office, where the kitchen table and (we assume) a regular kitchen chair constitute the everyday picture of where the body should be positioned. These objects generate back pain and fatigue, and lead Naima to express that she cannot take it anymore. Naima most probably did not have a proper office with an ergonomic chair during on-campus education, either. However, she performed more bodily movement when going to the university and had access to more varied forms of workspaces, such as the library and university spaces. Second, Naima expresses that the feeling of missing other people has emerged as time has passed. The longing for connection to the social environment, which the campus offers, takes over and blurs the initial experience. While the initial reaction to emergency-remote teaching created a feeling of relaxation, which had, in turn, the potential to increase closeness to the education, as the distraction of other people was eliminated, Naima's later experiences can be interpreted as orientating the body in other directions. The furniture that shapes the body in a direction of pain and the distance that creates a longing for connection with others may indicate a move away from the kitchen table, hence an orientation away from participating.

The embodiedness of raising the hand on Zoom

Ebba, who is a woman racialized as white, describes her first year in teacher education, when the teaching took place on campus, as a period of disappointment from a lack of gender perspectives and struggles related to sexism expressed by her classmates. She has been called "sweetie" (Swe. *lilla gumman*) in a belittling way by a male classmate during a seminar and exposed to rape "jokes" told by another male classmate during groupwork in the library. Moreover, she points out that the boys in her class take up a lot of space and attention at seminars, and describes herself as one of the few girls in class who "thinks out loud." But when it comes to emergency-remote education, Ebba's approach to speaking at seminars has altered. In the group interview, Ebba shares her difficulties with remote education, and describes Zoom as particularly demanding for her when it comes to the action of raising her hand. Ebba herself interprets this as related to gender.

Excerpt 3.

And yes, but like this, now on Zoom, many teachers also want you to raise your hand, physically, you should kind of sit like this and raise your hand. And for me it feels damn hard while all the guys just. We have talked a bit about it and they say "No, what do you mean, you just have to raise your hand, just do it, you know", while we think it is damn hard, and I think that says something about, yes but, that one is this "second sex," that is to capture a room is not as easy for us, in my class at least, when we have talked about this. (Group interview 2, Pos. 73)

When Alva, the other participant in this group interview asks further questions, Ebba expands on her experience:

Excerpt 4.

A: You said that the thing about physically raising your hand, that it can be difficult, is it the roll call or is it any particular activity... where raising your hand is difficult?

Eb: No, that's, it is more, I think it is more like this embodied, to be like this ok 'here I am' kind of [raising her hand straight up]. "Now I am going to talk," so that if I want to have the floor kind of, eh, and I think it feels difficult. It is easier to just "ok I will say it quickly" kind of, but when it gets like this, now you should, now you have to show that you will take space, you have to show that you want to talk in this room among lots of others who also want to talk, then it gets very difficult. So, it is probably, when one is going to take space, in these situations, and kind of stand for something that you are going to say. So roll call no, but when you are going to share something.

A: Yes ok. Yes, so you mean that it, that it can be difficult when others look at you or...

Eb: Yes exactly, that eh... it is an interesting question. It is probably a mix of being like this, being "here I come, and I am going to take lots of space, you know," then I also think it is on Zoom, and because I don't see everyone it gets even more difficult than in a classroom. I also think it is difficult, to like this raise my hand, then I have time to start stressing about what people are going to think and how they will find what I am going to say. In other words, I begin to think too much, basically. In situations where I am going to take space and need to kind of fight among lots of others who also want to take space somehow. And that is probably even more difficult on Zoom than in reality I would say, for me. (Group interview 2, Pos. 77–80)

With the shift from on-campus education to emergency-remote education, something that was already an issue, that is to speak in class, i.e., to participate, has become even harder for Ebba. She describes her struggles as embodied. The resistance to speaking in class on Zoom comes from the feeling of non-spontaneity, namely, that she must wait for her turn, which makes her stressed about what she is about to say. It also comes from the fact that she must show with her body that she wants to talk. This can be understood against the background of Iris Marion Young's idea of the female body as "inhibited intentionality," where "[i]n performing a physical task the woman's body does carry her toward the intended aim, often not easily and directly, but rather circuitously, with the wasted motion resulting from the effort of testing and reorientation, which is a frequent consequence of feminine hesitancy" (2005, p. 38). The body is reaching towards speaking, that is, reaching towards participating, by embodying an "I can." Yet, on Zoom, this reaching ends up in an "I cannot." Related to this is Gail Weiss' (2015) interpretation of Merleau-Ponty and Young's understanding of how girls' and women's ability to overcome experienced negative bodily limitations must arise from a doing instead of a thinking. Thinking often results "in a half-hearted or partial withholding of effort that makes failure to complete the task a self-fulfilling prophecy" (Weiss, 2015, p. 82), and might therefore inhibit the doing.

One way to understand Ebba's internal negotiations is that the on-campus classroom provides a space in which to "do," resulting in a feeling of "I can." The physical classroom space of organized chairs, floors, walls, windows, and dispersed student-bodies is a space of materiality that orientates her body towards raising her hand or speaking out loud before thinking. This reinforces the experience that speaking in the context of the education is possible. Zoom, with its non-spontaneous structure, the close-up squares of people and the self-view,⁴ restricts the user-body. The waiting makes the body start thinking instead of doing. Jeremy N. Bailenson (2021) suggests that the Zoom interface creates a situation in which people experience each other's

⁴ The self-view can be switched off, so others can see you, but you cannot see yourself. The default in Zoom, however, is that it is switched on.

faces as being as close as we usually are only with people with whom we are more intimate. The design of the digital platform makes us experience the interaction as if we are constantly having close-up eye contact with everyone in the room, whether we are speaking or not. As a result, the cognitive load on people using Zoom is much greater than it is in a physical meeting (Bailenson, 2021). As early as 2005, Selma Vonderwell and Sajit Zachariah stressed the importance of conducting “[r]esearch that investigates issues of interface design, learner participation patterns, and cognitive load in online learning [that] can enable instructional designers and educators to design effective online learning” (2005, p. 225). The default setting in Zoom, where one is exposed to a view of oneself, is a situation which we are spared in a regular classroom. Additionally, one study shows that women were more negatively impacted by seeing themselves on live video than men (Ingram et al., 1988).

The Zoom classroom is an assemblage of materiality different from the one experienced in a regular classroom. The intra-acting of the student and teacher-bodies’ appearances on the digital platform of the interface, the squares of faces appearing on the screen, the experienced direction of their gazes, and the directives on how to digitally raise one’s hand (physically), and the resulting waiting and the stress, direct Ebba’s student-body towards an “I cannot.” The embodied experience of emergency-remote education impedes the bodily action of raising the hand. This orientates the student-body further away from participating, and hence further away from this part of her education.

Energy-draining pre-recorded lectures

In an emergency state such as the COVID-19 pandemic, teachers and university personnel have been under constant stress to “make things work.” The message from leaders within university organizations has usually been to keep things going, not aim for perfection, and “do it good enough.” A risk when it comes to this idea is that some students’ experiences might be given lower priority, since dealing with these experiences may lead to extra workloads for teachers.

Alva, who is deaf, is attending a teacher programme based on sign language, where some of her classmates are also deaf. She is also taking courses with students who do not know sign language, and most of her teachers do not know it either. At times, the teaching lacks basic equal accessibility. During on-campus education, Alva often needs to educate and inform her teachers about the needs of deaf students. The need to educate is greater during emergency-remote education. Alva shares how the format of Zoom makes it more difficult to interact with others, since the procedure for taking turns speaking is less clear for her than in physical meetings. Her experience of online education is that it is based on auditive clues when it comes to taking turns in a conversation, which makes it more challenging for her to get into a conversation when using an interpreter online. Furthermore, in every class, she must remind teachers of how this works for her on Zoom.

Another part of the emergency-remote education that might hinder Alva’s learning process is the pre-recorded lectures. In on-campus education, the lectures are simultaneously interpreted into sign language. When we met, the pandemic had been going on for nine months, and the pre-recorded lectures had not been interpreted into sign language. They were subtitled in Swedish instead.

Excerpt 5.

[...] that we have pre-recorded lectures and so on, now during the Corona period, it means that they usually subtitle them, but don’t have sign language for them, and so it has become almost over half a year that it has been like that now, that it is still do not ensure that there is a sign language interpreter [...]. But right, that lectures also need to be in sign language,

if it is to be equal for someone hearing who needs speech and someone who then needs sign language, who has dyslexia for example, because it takes a lot of energy to read a text. But also, then that it is our second language, Swedish. Sign language is our first language, and then a second language, so it also makes a difference, requires a different type of energy when it is another language you use. (Group interview 2, Pos. 71)

Alva draws attention to the fact that deaf students with dyslexia might suffer from the lectures being subtitled instead of interpreted, but the lack of an interpreter also creates inaccessibility for deaf and hard-of-hearing students in general. One minor study by Elham Alsadoon and Maryam Turkestani (2020) followed virtual classrooms for deaf and hard-of-hearing students through the pandemic. It showed that sign language interpreters are necessary for teaching in a video-conference format, and pointed out that it is more efficient to use an interpreter than subtitles for deaf and hard-of-hearing students. The same is true when a student wants to ask a question during a lecture. The instructors interviewed in Alsadoon and Turkestani's study said that the reduced writing skills of deaf students made them hesitant to use written questions for interaction. Furthermore, all teaching of hard-of-hearing and deaf students must be based on existing knowledge of the learning processes of these groups. An example of this is that deaf students might have a harder time remembering the content of a course, since sign language occupies more memory capacity than spoken language (Alsadoon & Turkestani, 2020).

Alva mentions that Swedish is her second language (sign language is her first) and presents this as a possible reason why reading text requires more energy for her. While this is, of course, true, there may be other reasons. For example, studies show that deaf people have lower skills in reading in general, and that understanding text by reading is connected to "phonological coding and awareness skills, as well as language ability" (Pappas et al., 2018, pp. 2–3). However, reading skills may also be affected by individual factors, of course, such as whether one has been born deaf or lost hearing as an adult (Pappas et al., 2018).

With support from Ahmed (2012), Puwar (2004) and Puar (2012), we might understand the subtitled, pre-recorded lectures of emergency-remote education as being an arrangement of patterns of relations. These are relations between the materiality of the educational body, student-bodies and teacher-bodies, where the materiality of the educational body and teacher-bodies communicates an institutional expectation of a certain student-body. Ahmed argues that "[i]f we think of institutional norms as somatic, then we can show how by assuming a body, institutions can generate an idea of appropriate conduct without making this idea explicit" (2012, p. 38). The materiality of the subtitled pre-recorded lectures assumes an able-bodied student and shows implicitly how an appropriate student-body is a hearing body. Furthermore, the subtitles are matters that contain a force to direct the student-body away from the part of the education that is understanding and potentially learning from the lectures. This institutional somatic habit of ableism drains the deaf student-body of energy when forcing her to undertake the activity of reading, which is a more demanding activity. Theoretically, the energy used for reading could have been put into other forms of learning activity, giving the student-body more space to engage with the learning part of the education.

CONCLUSION

We have shown how the materiality of emergency-remote education orientates the participants situated within the bodily horizons of intersectional positions of being deaf, female, racialized as non-white and not having Swedish as a first language, both closer to and further from

various parts of their teacher education. The examples discussed show how these orientations are sometimes fleeting and momentary, as with Naima's experience of the relief of the emergency-remote education, and sometimes stand for more stable and long-term experiences, as existing structures are amplified by the remote mode. The examples also show how what might seem to be minor details in pedagogical work may have an impact on some students in a more wide-ranging manner.

We do not see the productive outcomes of the emergency-remote education, such as relief, or the more troubling outcomes, such as inaccessibility, as arguments for or against remote education. Rather, these orientating movements should be understood as indicators of how teacher education in particular and higher education in general can develop. One concrete suggestion could be conducting education for teacher educators on issues related to somatic intersectional norms – for example, this could be integrated in higher education pedagogy courses. Another suggestion might be to provide funding for recurring spaces and platforms for teacher educators to reflect on pedagogical topics related to emotions, corpomateriality and student needs. The analysis furthermore allows us to conclude that university organizations must work harder to obtain greater resources in order to make space to reflect on how to integrate practices in teaching that support equal access to the educational spaces of universities. We must ask ourselves as teachers, university organizations and politicians how we can equally facilitate learning experiences, i.e., an orientation towards all parts of the education for all students at all times.

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