

1. Excellence

1.1 State of the art, knowledge needs and project objectives

Pedagogy is a deliberate science and activity and has been expressed in varied ways. A general and traditional definition is that it deals with human activity intended for education, upbringing, and formation. The interest of pedagogy is processes of both science and practice where learning addresses transformation in some sense. Pedagogy is not merely about processes intended to influence; it is also about unexpected situations of knowledge and processes that we cannot anticipate or grasp beforehand (Biesta 2011, Korsgaard, Kristensen & Jensen 2017, Englund 2018).

The dominant line of thought in Western pedagogy in modern time has put the human being in the center of the world as the master of matter and nature; this has established a sharp separation between subjects and objects and has insisted on teaching knowledge that maintains a distance between the human being and its environment. As this line of thought has assumed the idea of human beings as subjects of unity and identity, relationships between these kinds of subjects have been prioritized. In this way, pedagogy has contributed to normalization, integration, and assimilation of everything non-human (Latour 1993, Haraway 2004, 2016, Staunæs & Krejsler 2013, Braidotti 2013, Grusin 2015, Bergstedt ed. 2017, Juleskjær 2019, 2020). This, in turn, has fortified the position of the human being as an autonomous observer of the world. This project originates from a critique of how this societal development has influenced pedagogy, and it searches for new possible and necessary alternatives.

The overarching aim of this research project is to examine the pedagogical relations between human beings and other matters and phenomena through the perspectives developed within the theoretical strand called new materialism. We are particularly interested in aesthetic aspects and phenomena and will primarily explore processes and relations within intramodal pedagogy, in particular Expressive Arts Pedagogy. We hereafter combine the term “intermodality” from Expressive Arts with the prefix “intra” (commonly used by the new materialist theoretician Karen Barad) to designate processes where the participants actively communicate by using and acknowledging entanglements of aesthetic intra-active modalities, i.e. a pedagogy where a variety of expressions of different sorts entangles and emerges together with a variety of other matters. Concretely, this is expressed through painting, playing music, writing poetry, and other ways of expression where body and matter are entangled in new and unexpected ways.

Expressive Arts is developed in the USA during the ‘70s and reached the Nordic countries in the late ‘80s (Knill et al. 1993, McNiff 1981, 2003, Rogers 1993, 2011). Today, Expressive Arts is an expanding field dominated by a psychotherapeutic orientation and application in the Nordic countries (Levine & Levine 1999, Meyer DeMott 2007, 2015). A pedagogical orientation of Expressive Arts inspired by a variety of sources has simultaneously been developed internationally, termed Expressive Arts Education and Expressive Arts Coaching and Consultation (Davidsson & Schwartz 2008, Morgan 1993, Romanowska 2014).

In Norway, Professor Melinda Meyer DeMott has expanded the work with Expressive Arts and is currently developing implementations of Expressive Arts in Transition (EXIT) in schools, health centers, and reception centers (see Meyer DeMott 2007, 2015). In Sweden, an orientation towards schools and social services was initiated at The Welfare Research Center, Mälardalen University in Eskilstuna, Sweden, and thereafter developed by the municipality of Eskilstuna and the Church of Eskilstuna (Apelmo 2008, 2009, ed. 1996, Apelmo et al. 2004, 2012). This work expanded to several pedagogical projects, including educational interventions for teachers and social workers, coaching, and extensive projects working with children and youths in need of special support and stimulation. Expressive Arts also became a part of the university program for social workers at Mälardalens högskola (Apelmo, Tedenljung & Lundkvist 2018).

Post-humanist feminist and new materialist approaches to pedagogy, teaching, and learning have grown significantly in recent years and the literature is now extensive (see for example Bayley & Taylor ed. 2018). In a Nordic context, there has in recent years been an increase of studies applying post-humanism and new materialist perspectives, focusing on a wide spectrum of the subject such as rulers (Hultman 2011), literacy

dogs (Ceder 2017), statues (Juleskjær 2019), computer programs (Bodén), images (Lind 2010), methodologies (Otterstaad 2018), life in school (Falkenberg 2017) colleges (Sauzet 2015), art galleries (Lindgren & van Vulpen 2016), desire (Olsson 2009), motivation (Wied 2019), health (Gunnarsson 2017), future (Johansson 2015) and reflection (Moxnes 2018).

In addition, recent research has mainly been focused on matter that can be related to pupils in kindergarten, classrooms, and school buildings. Our project will study matter in aesthetic processes that take place in other educational environments. Atkinson (2011, 2018), Lewis (2011), and Lundkvist & Apelmo (2018) have previously explored the entanglement of aesthetics and pedagogy theoretically and philosophically. In a Nordic context, many scholars have recently examined the notion of formation in a way that is interrelated to the perspective of our project (Bornemark ed. 2007, Burman ed. 2011, 2014). We will contribute to both of these orientations by entangling them. We will thereby provide previous research with a new perspective by describing a context wherein aesthetics and pedagogy is entangled, and a knowledge that, in turn, will be directly useful in higher education and the education of teachers. The novelty of the project is to develop a theoretical perspective as well as a pedagogical praxis.

1.2 Research questions and hypotheses, theoretical approach and methodology

The key problem for this project is the impact of materiality in pedagogical processes. In order to explore this problem, our project will elaborate with three work packages. The first work package (WP1) consists of a theoretical study in which we will explore questions about productive philosophical and theoretical positions concerning intramodal pedagogy. The working hypothesis of the study is that the diffractive patterns of the anti-hierarchical and post-humanist aesthetics of new materialism and the Hegelian idea of a contradictory being will enable new perspectives on the becoming of formation as well as on the aesthetics and ethics of teaching, which in turn radicalize the understanding of democracy, knowledge, and creativity in pedagogy.

The second work package (WP2) consists of an empirical study in which we will explore pedagogical and aesthetic processes in praxis and the possibilities of forming an intramodal pedagogy that is attentive to the agency of matter in a wider extent. The empirical data originates from praxis within Expressive Arts, with a particular focus on the pedagogical processes where agential matter is of central importance. The third and last work package (WP3) consists of tasks regarding administration and communication of the project. The project will be exploring six research questions – the first three questions relate to WP1, whereas the last three questions will be explored in WP2:

1. How can we understand the notion of formation in pedagogy from a new materialistic perspective?
2. How is this new materialistic idea of formation theoretically entangled with the praxis of teaching, ethically and aesthetically?
3. How does this new materialistic idea of formation potentially relate to pedagogy as a societal and political phenomenon?
4. Which features characterize the entanglement between subjects, human bodies, and other matters in these aesthetic processes of becoming?
5. What is needed for knowledge to come into being in the intra-action of subjects, bodies, and other matters?
6. How do these matters, which entangle bodies and things, emerge in intramodal pedagogical situations? How does matter pose questions and display its agency in these processes? How is the position of the subject affected by acknowledging the agency of matter?

1.2.1 Theoretical approach

Theoretically, this project will use post-humanist theory, and especially the orientation termed *new materialism* (Haraway 2004, 2016, Barad 2007, Bennett 2010, Groz 2018). New materialism argues that matter has an agential potentiality in itself, which is not always identified and represented by human language (Bennet 2010). It promotes the idea that humans are embedded within more than just human networks and therefore are not autonomous agentic forces in the world. Therefore, we need to rethink agency and subjectivity. The novelty of new materialism is its critique of anthropocentric thinking, while still being open towards exploring intra-connections and entanglements between human beings and other non-human phenomena in situations of

knowing and learning. The entanglements that emerge and take form in these situations are entanglements of the human and the non-human.

The theoretical physicist Karen Barad is a key figure in this orientation of thought, and she regards all bodies – not only the human body – as agents in ongoing performativity (Barad 2003, 2007, 2010, Juleskjær 2019). In her line of thought, the notions of matter and phenomenon are crucial. What is vital for Barad’s idea of *matter* is that it is not limited to signifying materiality as we commonly do, but also includes discursive matters, such as language and ideas. Barad proceeds from the premise that discourse and materiality are two sides of the same coin, and this she terms matter. She uses the notion of *intra*-action to emphasize relations that involve human as well as non-human matters, unlike the notion of *inter*-action, which is limited to the human being (Barad 2007). The notion of *phenomena*, which Barad borrows from the quantum physicist Niels Bohr, describes the temporary products of *intra*-action, i.e. not objects but “instances of wholeness” (ibid. 118–119). While matter is both a stabilizing *and* de-stabilizing process of repeated *intra*-activity, phenomena emerge from this *intra*-activity. This indicates that phenomena should be seen as effects of this *intra*-activity, as a continuous entanglement between different phenomena. Through *intra*-actions, temporary demarcations are created. Phenomena enable and maintain their becoming with the world by entangling, connecting, disconnecting, and dispersing with others (ibid.). Phenomena are not, therefore, ended results, but rather constantly ongoing materializations expressed in forms and movements (ibid.). Phenomena are specific for the circumstances that they take part in creating, together with other phenomena from previous *intra*-actions. We never know and could never anticipate how phenomena or knowledge will emerge – we only know that they have done so and will do so in a continuous agential becoming with the world. These ways in which Barad uses the notions of matter, phenomena, and *intra*-action will be indicative of the project.

Barad is inspired by Bohr who claimed that we are never able to step outside of reality and observe it objectively and externally (Barad 2007, 2010). With instruments and interpretations, we always intervene and transform the objects we study, and the way in which we observe the world will affect the discoveries we make. The becoming of reality and how it could be interpreted is determined by how we design our research, which means that our research will materialize in specific and not entirely objective ways (Bohr 2013). This implies that we, as researchers, must pay close attention to how we design our instruments and tools. We are dependent on language; but there is, at the same time, a world that we are a part of and entangle with, according to Bohr. We are both participants and observers simultaneously and we entangle and materialize with the world in how we narrate and describe it. We could never reach an understanding of the essence of the world – all we can do, according to Bohr, is to try continuously to reach different descriptions of *relating with the world* (Bohr 2013, Favrhøldt 2009). Within a post-qualitative research tradition, following Bohr, the researcher herself is considered *to be* the instrument of the research, which places greater importance on how we construct and use ourselves as *apparatuses of knowledge*. For this, we will rely on Barad’s (2007) idea of *apparatuses*, which is her term for concepts in which we establish boundaries for the configuring of matters and phenomena.

1.2.2 Methodology

In developing an apparatus of knowledge, we are inspired by what Malou Juleskjær (2020) calls a *sensorium*. This notion originates from the Latin word “sensus” and describes the part of the brain that apprehends shifting sensory experiences, which includes sensation, perception, and interpretation of experiences – that is, both experienced in the body and in relation to other phenomena (ibid.). We have combined this notion with the notion of *haptics*, which indicates that the body is oriented towards being touched as well as touching other phenomena. Our apparatus of knowledge will, therefore, be called a *haptic sensorium*.

The haptic sensorium strives for perceiving, and becoming a part of, the multiplicity in which each body finds itself. According to Barad (2007), to touch and to be touched are constantly ongoing processes in a world that we are already a part of. There is no specific boundary between the body and the outside or inside of the body. The body becomes active by being touched by the things we explore through the eye, the ear, the skin, the genitals, and the stomach, etc. To succeed, the boundaries between phenomena must dissolve, broaden, disperse, disconnect, and intermingle.

The haptic sensorium helps us in mixing a variety of senses, enabling a wider openness towards the world in which we participate. This allows greater attention to appearances of unconscious bodily effects during the processes. Taken together, the haptic sensorium draws our attention to how phenomena emerge, move, switch, disconnect, transform, and entangle with the world (Ingold 2011, Staunæs & Kofoed 2015).

The next step is to describe the processes and discoveries we make through our haptic sensorium. The philosophers Gilles Deleuze and Félix Guattari and their interest in the cartography inspire this part of the project (Deleuze & Guattari 2015). One common way of interpreting a map is to see it as a representation, as an image that is added as a grid over the world. This makes the living, complex, and inconstant parts of the world formalized. Contrary to this map, the cartography lacks any beginning or end. Every point could be considered a starting point – it depends on how you choose to orient yourself. To map is here an ontological assumption about the world that always contributes to a production of knowledge about it (ibid).

One particular form of cartography that Deleuze and Guattari are interested in is what they call the *rhizome*. This figuration directs attention to flows that move in multiple directions towards unlimited growth. Contrary to the tree as a metaphor, the rhizome has no lifeblood, no roots, or synchronized growth. A new rhizome could be created in the middle of a tree or a crotch. This openness means that the rhizomes are surrounded by uncertainty since it necessarily contains aspects that, at least in a specific moment, is not possible to think (ibid). What the rhizome focuses on is to observe unpredictable and non-linear movements of phenomena in order to find assemblages that enable these phenomena to emerge and to be attentive to the unexpected and unplanned affections that create the intensity and potentiality for transformation in a situation. The term *assemblage* was introduced by Deleuze and Guattari (2015), with the literal meaning “arrangement”, “connectivity” or “composing”. Assemblages are never fixed; they are collective elements that generate and produce effects.

1.2.3 Work package 1: The theoretical study

WP1 will explore new materialistic perspectives on the notion of *formation* in pedagogy to provide the project with a worked-through and elaborate theoretical foundation, which entangles and binds together its trans-disciplinary assemblages. The object of WP1 is how formation in pedagogy could be understood from a new materialistic perspective. To do this, we will examine the following research questions:

1. How can we understand the notion of formation in pedagogy from a new materialistic perspective?
2. How is this new materialistic idea of formation entangled with the praxis of teaching, ethically and aesthetically?
3. How does this new materialistic idea of formation potentially relate to pedagogy as a societal and political phenomenon?

The theoretical study will be a diffractive concept study, in line with our methodology, and will be trans-disciplinary and emphasize the production of difference in the process of researching (Barad 2007). The analysis presupposes Barad's idea of the previously mentioned entanglement of matter and discourse, i.e. the idea that matter and discourse are not essentially different phenomena. This implicates that a concept study should not be understood as a “linguistic” or “discursive” study, but rather as a material-discursive study of what concepts do and how they intra-act with us. The diffractive analysis entangles texts and notions in new ways to produce difference. By these entanglements, new notions and concepts are able to emerge and come forth in novel ways; in this sense, the study is expected to create new notions and concepts, or new perspectives on existing notions and concepts.

By examining the idea of formation, the intention is to entangle two research traditions within pedagogy and education which we at first may perceive as incompatible: on the one hand, German idealism with the German philosophers Immanuel Kant and Georg Wilhelm Friedrich Hegel as key figures, and on the other hand, new materialism influenced primarily by Karen Barad and Gilles Deleuze. By staging entanglements through, between, over, and under different philosophical and pedagogical ideas, the intention is to cause new and productive diffractive patterns to emerge. An important premise of this theoretical study is that new materialism and German idealism is not as far from each other as one might think. Although Deleuze is often described as the antithesis of Hegel, recent ontological and epistemological discussion within contemporary

continental philosophy revisits German idealism and problematizes the conventional understanding of the discoveries that they made (see Žižek 2012, Malabou, 2004, McGowan 2019). The traditional understanding of Hegel’s dialectical idea as a developmental process from *thesis* to *antithesis* and finally *synthesis* is challenged by another understanding, which instead claims that Hegel’s main ontological idea is that being is ontologically antithetic (ibid., Hegel 1977, 2010).

Moreover, the experience of everyday pedagogical praxis is an important component in this analysis. This will not be an empirical study, but it nevertheless originates in experiences from teaching and other ways working with formation. These experiences are not merely contributing with contexts or concretizations – they will also contribute to creating something new. As in post-qualitative research, this study will use the researcher productively by entangling a narrative that originates in experiences from everyday teaching, and other experiences of pedagogical praxis, with abstract and philosophical examinations of concepts, and thus enable a novel approach to the studied objects (see for instance Barad 2007 and Johansson 2015). This type of entanglement is, in other words, not meant to *exemplify* but rather to *produce* difference.

1.2.4 Work package 2: The empirical study

WP2 will explore and examine the patterns of diffraction that emerges when a research process entangles with an expressive aesthetic process within a pedagogical context. We will analyze the potential role of intramodal expressions as apparatuses in examining the immeasurable material-discursive processes of change. We will use and study different intramodal apparatuses as to how these initiate and illuminate discursive-material interactions. The researchers are given a more intra-active role in the study, and the apparatus will contract with a haptic sensorium (Barad 2007, Maclure 2013, Juleskjær 2020).

The main object of WP2 is the entanglements between the human bodies and aesthetic expressions and the agency of other matters as well. To do this, we will examine the following research questions:

1. Which features characterize the entanglement between subjects, human bodies, and other matters in these processes of becoming?
2. What is needed for knowledge to come into being in the intra-action of subjects, bodies, and other matters?
3. How do these matters emerge in intramodal pedagogical situations? How does matter pose questions and display its agency in these processes? How is the position of the subject affected by acknowledging the agency of matter?

The type of intramodal pedagogy that we select for WP2 is based on work conducted within Expressive Arts due to its focus on all of the human senses, emotions, and intellectual tools in creative processes wherein the participants search for expressions. Described with our terminology, Expressive Arts focuses on a multiplicity of ways of intra-acting with matters of all sorts by shifting and entangling a variety of aesthetic expressions in the formation process. The participants communicate through expressive aesthetic modalities, including the everyday language, and also form transitions between these modalities in intermodality (Apelmo 2009). As previously stated, we will instead call this type of process *intramodality*, with regards to Barad’s usage of the “intra”-prefix.

The theoretical development within this pedagogical orientation of Expressive Arts originated from Paolo Freire’s “critical pedagogy”, inspired by Martin Buber’s and Carl Roger’s humanistic philosophies, and later on developed via the phenomenology of Maurice Merleau-Ponty, Emmanuel Lévinas and Daniel Stern as well as post-modern and post-structuralist philosophy (Anderson 1999). Within the theory of Expressive Arts, there is a tradition that acknowledges openness and innovation, which implies that new materialism could contribute to this ongoing development of the field, both theoretically and practically. In the empirical study, we will rely on entanglement of the theoretical perspectives of new materialism to examine pedagogical implementations of Expressive Arts within a variety of fields.

In WP2 we will conduct four experimental and intermodal workshops with ten participants each, designed in accordance with Expressive Arts. The participators in these workshops will mainly be practitioners within the

tradition of Expressive Arts in Norway and Sweden. We will also invite representatives from Science Park in Värnamo and representatives from the Church of Sweden due to previous collaborations. Within the research group INTRA (see 3.1 for further information) we have extensive and long-standing experience of working with intramodal pedagogy and Expressive Arts, which will be utilized in the preparation and implementation of our workshops. Moreover, we have access to facilities and materials particularly suitable and customized for working with intramodal pedagogical activities, as well as a wide and heterogeneous network of potential collaborators interested in participating in the workshops. In the encounter with intramodal pedagogy, the participants will be guided through an exploration of different themes without pre-defined orientations or goals using different artistic expressions and intermodal tools.

To these workshops, the researchers will be suitably prepared with the apparatuses that we call haptic sensorium. During the workshops, the researcher will collect a varied collection of data to be able to describe the processes cartographically as rhizomes. The researcher will document movements, actions, and events in the intramodal pedagogical processes. The participants will be invited to pay attention to the intra-action between themselves and other matters, including the other participants. In addition to the documentation that is collected, the researcher will also videotape the processes in order to discover other diffractive patterns than those we discover while participating.

Due to the nature of our theoretical approach and methodology, the process of the documentation and collection of data ought not to be too prepared or directed in advance, since it needs to be more responsive and flexible than traditional empirical research. We will collect a wide variety of data to be able to study the entanglements and agencies of subjects, bodies, and other matters in the process of knowledge. In this way, we will empirically study the same events of formation that will be the object of WP1. The processes of work packages (WP1 and WP2) will, therefore, be able to affect and influence each other along the way: new empirical and theoretical perspectives will be able to unfold in an interplay between the work conducted in each package. WP1 and WP2 will be supplemented by WP3, which will be focusing on the overall administration of the project and on the communication and dissemination of its results (see 3.2 for a description of WP3).

1.2.5 Ethical aspects

In the project, we will carefully consider the aspects of the research ethics regarding the position of the researcher and the execution of the research and follow the general codes of research ethics developed by The Norwegian National Research Ethics Committees. The project will also notify the Norwegian Centre for Research Data to obtain their approval on how we handle personal information and other data that requires special protection. We will also follow the specific instructions and requirements of Østfold University College on how to manage data during the research project. It will be important for the project to follow NFR's goals of Open Science and to ensure that there is open access to research data.

1.2.6 Gender aspects

The project will likewise consider a plurality amongst the participants in the empirical study regarding gender and ethnicity carefully, in line with the feministic tradition of new materialist research tradition (Haraway 2016, for instance). Regarding the participants of WP2, we will take gender into consideration to strive for heterogeneity and plurality.

1.2.7 Risks and mitigation measures

Table 1: Risks and mitigation measures

Description of risk	Related project objective(s)	Proposed risk mitigation measures
Remaining restrictions due to COVID-19	WP2, WP3	Extended use of Zoom and digital platforms
Recruitment of staff	WP1, WP2	Existing research group

Recruitment of participants	WP2	Existing networks, organizations and collaborations
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1.3 Novelty and ambition

Our research aims at extracting new knowledge about how the human being becomes through formation and creates knowledge through aesthetic entanglements with matter and non-human phenomena. This occurs in a research field that is under development. There is a need for a widened understanding of the possibilities of exploring this in pedagogical contexts. We will contribute to previous research with new perspectives on the entanglement of aesthetics and pedagogy in different educational contexts, which will potentially be useful in higher education and the education of teachers.

The project will contribute with new theoretical knowledge by re-thinking new materialist pedagogy in three ways: theoretically, methodologically, and empirically. On a theoretical level, no one has previously done a diffractive reading of new materialism through current and contemporary philosophical perspectives in the way we intend in WP1. Moreover, WP2 will contribute to a new empirical understanding of expressive aesthetic pedagogical processes and thereby contribute to development of the understanding of intramodal pedagogy, such as Expressive Arts. Methodologically, the project builds on research within post-qualitative perspectives and develops a new form of apparatus based on the haptic sensorium. No such apparatus that utilizes the senses of the body in its exploration and becoming with the movements and entanglements of phenomena has previously been developed.

Apart from the unconventional reading of German idealism and its entanglement with new materialism, WP1 aims at contributing to the project as well as to the field of philosophical pedagogy and research of formation in several ways. Firstly, it will re-examine the notion of formation in the context of contemporary philosophical and pedagogical debates. Secondly, it will be using this notion to examine and deepen the ethical and aesthetic aspects of pedagogy, including the approach to knowledge and democracy. Finally, it will examine the potential role of formation from a new materialistic perspective in the praxis of teaching as well as in the educational system by drawing the pedagogical and didactical consequences that follow from this approach.

The decision to use Expressive Arts in WP2, besides its potential of producing a variety of data from different kinds of aesthetic processes, is its long tradition of working with the entanglement of the human being and other matters. However, this pedagogical tradition has not benefited from the theoretical achievements of new materialism yet, which has made it somewhat limited in describing these entanglements. Through our research, the research tradition within Expressive Arts will be able develop both practically and theoretically. In addition to this contribution, our empirical study will also contribute with new perspectives to the relatively unexplored orientation of new materialistic pedagogy by exploring an in-depth application of intramodal pedagogy using a new materialistic approach to clarify the possibilities and limits for such interventions.

2. Impact

2.1 Potential for academic impact of the research project

Within the pedagogical research field, there has been a shift from socio-cultural and post-structuralist perspectives to post-humanist. This project will contribute to the development of this shift. The project contributes to contemporary and future challenges within science by developing novel new materialist theory and use this in the exploration of empirical processes within intramodal pedagogy. The knowledge that emerges from the research of the project will be directly useful within the education of teachers, and within other university programs; theoretically and methodologically, it will be useful in master's programs and Ph.D. studies in contributing with an understanding of how the agency of matter plays a part in educational processes. It will also be practically useful in working with aesthetic activities within schools, preschools, and other pedagogical contexts. Overall, the project will produce new knowledge within a growing field of research that highlights the relationship between human beings and other matters in a new and different way, overriding the division of theoretical and empirical knowledge.

2.2 Potential for societal impact of the research project

A re-thinking and re-configuration of pedagogy are increasingly important in a time of global challenges and crises concerning climate, environment, health, and politics – challenges that problematize how knowledge

emerges and is taught (Bayley & Taylor ed. 2018, Juleskjær 2020). To succeed with a new pedagogy that can better meet the challenges of our time, we initially need different starting points than those that put man at the anthropocentric centre. To do this, it has become increasingly necessary to draw attention to matter and nature.

2.3 Measures for communication and exploitation

An important element in the project will, therefore, be to analyze the results from both studies of WP1 and WP2 and relate them to our aim and research problem. In addition to being presented together in a final project report, WP1 and WP2 will be presented as doctoral theses and in articles submitted for peer-reviewed journals.

The stakeholders of the project operate both within and outside of academia. We cater for active researchers, who are interested in the relationship between the human being and other matters in different contexts, especially those who approach these problems from a new materialist and post-humanist theoretical perspective, as well as those working with post-qualitative research methods. Particularly important stakeholders and collaborators are the following research groups and networks: *Kreativitet, kunst og innovation I utdanning, praksis og forskning* and *Småbarnsvitenskap (0–3 år)* at Østfold University College, the trans-disciplinary research group *Posthumanistisk pedagogik* in Copenhagen and *Post-approaches to Education* (NERA). Other important stakeholders are researchers within different disciplines researching aesthetic processes of knowledge in Norway at Oslo University, OsloMet, University of South-Eastern Norway, Queen Maud University College, and Norwegian University of Science and Technology.

We will establish collaborations, in terms of networks and seminars, with other universities outside of Norway, such as Mälardalen University, Malmö University, Stockholm University, Danish School of Education, Middlesex University in London, and Manchester Metropolitan University. Furthermore, the project directs itself towards the education of teachers in Norway and Sweden and other vocational training within academia, where the experiences within the project could be utilized regarding theories about new materialism and post-qualitative research methods in bachelor- and master theses, as well as in working with aesthetic processes in teaching.

Regarding the stakeholders inside academics, we will direct ourselves towards those that conduct research within the tradition of Expressive Arts in Norway, such as Professor Melinda Meyer DeMott at European Graduate School, and in Sweden, such as Lecture Dan Tedenljung at Mälardalen University. We will also continue our previous collaboration with representatives from Science Park in Värnamo, Sweden, and the Church of Sweden, regarding projects about leadership development, personnel training, and operational development.

In the final report of the project, we will present the project outcomes of the project and its work packages. In addition to this, the participants in the empirical study of WP2 will get feedback and we will initiate dialogues with interested researchers and practitioners. Our ambition is to be able to spread the result of the study through established networks and journals as extensively as possible outside of the research community. We will also organize a conference in Värnamo, Sweden, in August 2022, directed towards companies, schools, and other pedagogical actors.

3. Implementation

3.1 Project leader and project group

The project leader (PL) is Professor Bosse Bergstedt. He has years of experience working with pedagogy as a teacher and researcher. A wide interest of pedagogical philosophy, history of ideas, philosophy of science and methodology, has led him into using theories and methodologies within post-humanism and new materialism in recent years. He has published hundreds of articles and books, supervised nine PhD students who have defended their theses, and he has participated in about 60 PhD thesis presentations as a critic and specialist. He has also been the head of a department of pedagogy, editor of the journal *Pedagogisk Forskning Sverige* for five years, evaluated research education within pedagogy in Croatia and master programs within pedagogy in Sweden. He is the scientific leader of two research groups focusing on post-humanism and new materialism, one in Copenhagen and one Nordic research group within NERA. Please see the curriculum vitae for more merits.

The project builds on the research recently initiated and developed within the research environment INTRA, Expressive Arts Education, and Research. The group consists of Bosse Bergstedt (attached CV), Per Apelmo

and Hannes Lundkvist, and also Dan Tedenljung, a lecturer at Mälardalen University. INTRA explores the importance of aesthetic activity in pedagogy. In the entanglement of aesthetics and pedagogy, we discover how knowledge is established and which consequences this brings to the practice of pedagogy. The research originates in the practice of the intramodal pedagogy within Expressive Arts and has resulted in research articles, of which two are published in peer-reviewed journals (see the curriculum of Per Apelmo and Hannes Lundkvist). The work of INTRA is based on 25 years of working with Expressive Arts, both traditional pedagogic work, such as teaching, and other areas where pedagogy is of central importance. INTRA partakes and supports projects working with different kinds of education, leadership training, social work (in a broad sense), healthcare, development of organizations, and formation, and organized a conference in Värnamo, Sweden, on new materialism in 2019. See <http://5ba3bbc315708.yolasitebuilder.loopia.com/Om-oss.php> for more information.

3.2 Project organisation and management

The overarching project aims for a mutual enrichment between WP1 and WP2, administrated through WP3. The combination of the work packages will enable us to answer the research questions of the project and contribute to new knowledge. WP1 of the project will be a theoretical study conducted as a doctoral thesis. The task of this study is to explore our overarching research questions theoretically. WP2 of the project is an empirical study of different intramodal pedagogical ventures, also conducted as a doctoral thesis. WP1 and WP2 will be interconnected during the project. Two PhD students start at the same time, one for each WP. The project will begin with joint planning, after which the students work individually with theory and empiricism. During the process, there will be continuous project meetings, conferences, and tutorial meetings to discuss their work with the project leader and the reference group, WP1 and WP2 will each be finalized with a dissertation, and the result of both studies will form the basis for the final report of the project.

The project leader will lead and coordinate all WPs. In addition to the scientific WPs 1 and 2, there will be a WP3 where the PL will perform the tasks of reporting to the RCN and managing the budget of the project. In WP3, the PL will also be responsible for creating a website, and handling contacts and communicating with networks and internal as well as external research environments. He will be the supervisor for the two PhD students and responsible for supporting and linking their research projects, by arranging continual supervisor meetings and project meetings. He will also initiate lectures and seminars at Østfold University College, and be responsible for communication with media, journals, and the local community. The project leader is responsible for the distribution of other task assignments within all work packages, which include contacts with participants in the empirical study, mainly within the Expressive Arts community, and other relevant assignments such as organizing a conference at Vandalorum in Värnamo, Sweden, participating at international conferences, writing articles, invitations to lectures and seminars.

The project will be located at Østfold University College, where there will be physical appointments and seminars. Other contacts and exchanges of information will be managed via the website of the project, which will enable participants and others interested to follow the process of the project. Here are the preliminary schedules for each WP (PS1 = First PhD student, PS2 = Second PhD student, PL = Project leader):

Table 2: Preliminary schedule for WP1

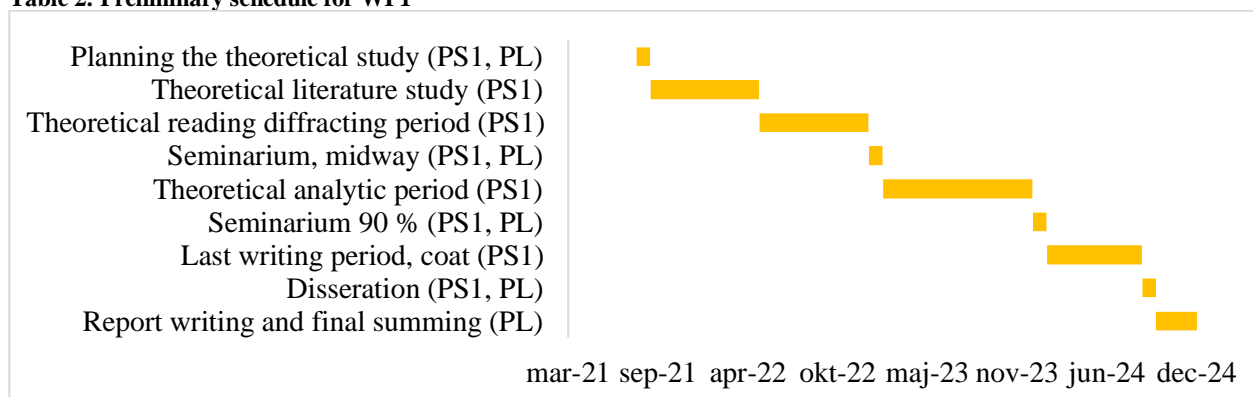
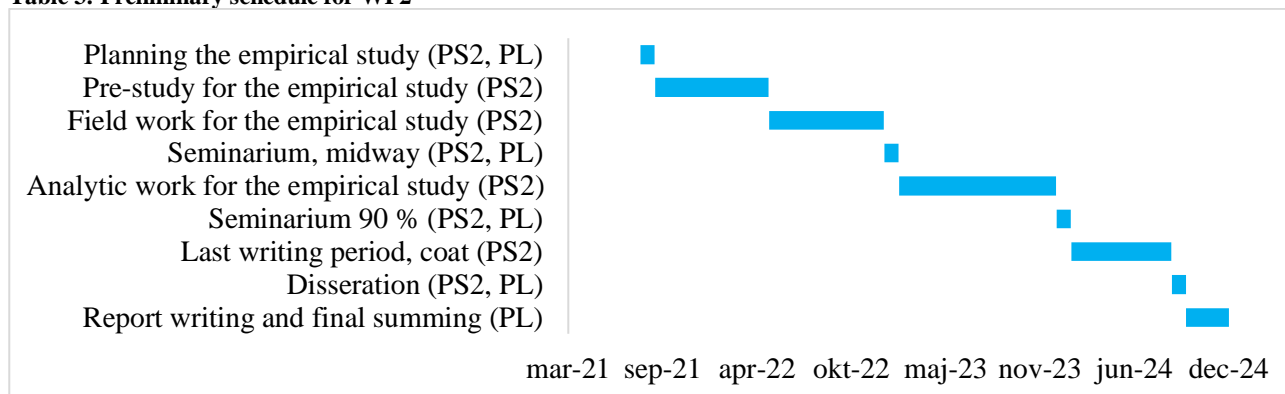
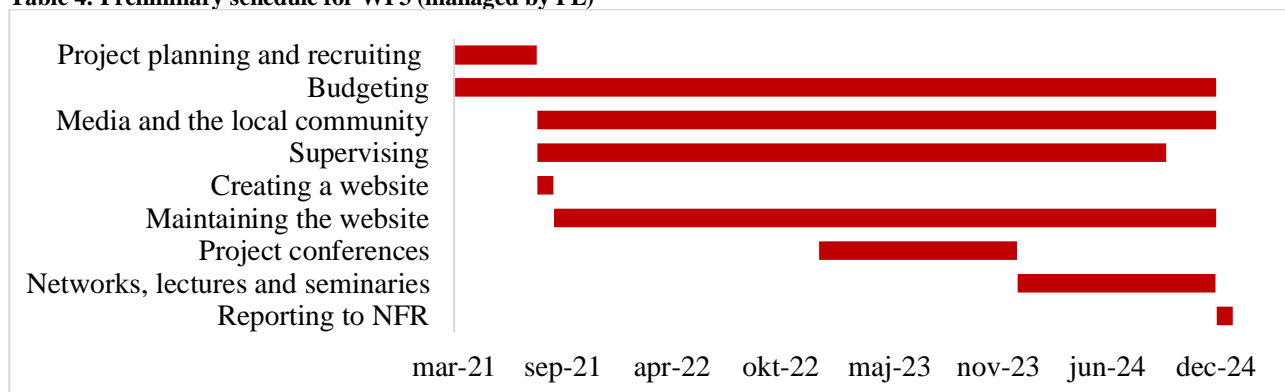


Table 3: Preliminary schedule for WP2**Table 4: Preliminary schedule for WP3 (managed by PL)**

References

- Anderson, Harlene, (1999), *Samtal, spark och möjligheter*, Stockholm: Mareld
- Atkinson, Dennis, (2011) *Art, Equality and Learning. Pedagogies against the State*, Rotterdam: Sense Publishers.
- Atkinson, Dennis, (2018) *Art, Disobedience and Ethics. The Adventure of Pedagogy*, Cham: Springer.
- Apelmo, Per, (2008) *Den ickeverbala kommunikationens betydelse. Kommunikation av kroppsligt förankrad erfarenhet*, Umeå: Umeå universitet.
- Apelmo, Per, (2009) *EXA; Expressive Arts – Uttryckande konst. Tillämpning i skola och socialtjänst – teoretiska perspektiv och exempel*, Lund: Lunds universitet.
- Apelmo, Per ed. (1996) *Uttryckande konstterapi – en presentation, med exempel på tillämpningar*, Eskilstuna: Mälardalens högskola.
- Apelmo, Per et al. (2004) *Utvecklingsarbetet Fristadsbarn. Avslutande rapport 2004*, Eskilstuna: Eskilstuna kommun.
- Apelmo, Per et al. (2012) *Utvecklingsarbetet SKAPA. Slutrapport*, Eskilstuna: Eskilstuna församling.
- Apelmo, Per, Tedenjung, Dan & Lundkvist, Hannes, (2018) Subjektifierande högskolepedagogik, in E. Ärleman-Hagsér & M. Öhman ed. *Högskolepedagogisk utveckling i teori och praktik*, Västerås: Mälardalens högskola, 48–62.
- Barad, Karen, (2003) “Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter”. *Signs*, 28(3): 801–831.
- Barad, Karen, (2007) *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Durham/London: Duke University Press.
- Barad, Karen, (2010) “Quantum Entanglements and Hauntological Relations of Inheritance: Dis/continuities, SpaceTime Enfoldings, and Justice to Come”. *Derrida Today*, 3(2): 240–268.
- Bayley, Annouchka & Taylor, Carol A. ed. (2018) “Posthuman Pedagogies”, *Parallax* 24(3)
- Bennett, Jane, (2010) *Vibrant Matter, A Political Ecology of Things*. Durham/London: Duke University Press.
- Bergstedt, Bosse ed. (2017) *Posthumanistisk pedagogik, Teori, undervisning och forskningspraktik*, Malmö: Gleerups.
- Bergstedt, Bosse & Herbert, Anna, (2017) *Pedagogik för förändring. Röster som utmanat kunskap och samhälle*, Lund: Studentlitteratur.
- Biesta, Gert J.J., (2011) *God utbildning i mätningens tidevarv*. Stockholm: Liber.
- Bodén, Linnéa, (2016) *Present Absences. Exploring the Posthumanist Entanglements of School Absenteeism*, Linköping: Linköpings universitet.
- Bohr, Niels, (2013). *Filosofiska skrifter: Bind I–III*, Aarhus: Forlaget Philosophia.
- Bornemark, Jonna ed. (2007) *Det främmande i det egna. Filosofiska essäer om bildning och person*. Huddinge: Södertörns högskola.
- Braidotti, Rosi, (2013). *The Posthuman*. Cambridge: Polity Press.
- Burman, Anders ed. (2011) *Våga veta! Om bildningens möjligheter i massutbildningens tidevarv*. Huddinge: Södertörns högskola.
- Burman, Anders ed. (2014) *Att växa som människa. Om bildningens traditioner och praktiker*. Huddinge: Södertörns högskola.
- Ceder, Simon, (2016) *Cutting Through Water: Towards a Posthuman Theory of Educational Relationality*, Lund: Lunds universitet.
- Davidson, Anne & Schwarz, Dale, (2008) *Facilitative Coaching. A Toolkit for Expanding Your Repertoire and Achieving Lasting Results*. San Francisco: Pfeiffer.
- Deleuze, Gilles & Guattari, Félix, (2015). *Tusen platåer*. Hagersten: Tankekraft.

- Englund, Tomas, (2018) "Brytpunkter och tendenser i svensk pedagogisk forskning", in M. Nilsson Sjöberg ed. *Pedagogik som vetenskap. En inbjudan*, Malmö: Gleerups, 27–44.
- Falkenberg, Helene (2017) *Skole- og ungdomsliv i overbygningsskolens rum og steder – diffraktive og rytmeanalytiske læsninger af skoleliv i nye organiseringer af udskolingen*, København: Aarhus universitet, DPU.
- Favrholdt, David, (2009) *Filosoffen Niels Bohr*, Informations Forlag.
- Grosz, Elisabeth, (2018) *The Incorporeal: Ontology, Ethics and the Limits of Materialism*, New York: Colombia University Press.
- Grusin, Richard ed. (2015) *A Nonhuman Turn*. Minneapolis: University of Minnesota Press.
- Gunnarsson, Karin, (2017) "Möten och rörelser i affektiva koreografier" in B. Bergstedt ed. *Posthumanistisk pedagogik, Teori, undervisning och forskningspraktik*, Malmö: Gleerups.
- Haraway, Donna, (2004). *The Donna Haraway Reader*. New York/London: Routledge.
- Haraway, Donna, (2016) *Staying with the Trouble*. Durham/London: Duke University Press
- Hegel, Georg W.F., (1977) *Phenomenology of Spirit*. Oxford: Oxford University Press.
- Hegel, Georg W.F., (2010) *The Science of Logic*. Cambridge: Cambridge University Press.
- Hultman Karin, (2011) *Barn, linjaler och andra aktörer: Posthumanistiska perspektiv på subjektsskapande och materialitet i förskola/skola*. Stockholm: Stockholms universitet.
- Ingold, Tim, (2011) *Being Alive: Essays on Movement, Knowledge and Descriptions*. New York: Routledge
- Johansson, Lotta (2015) *Tillblivelsens pedagogik: Om att utmana det förgivetagna. En postkvalitativ studie av det ännu-icke-seddans pedagogiska möjligheter*. Lund: Lunds universitet.
- Juelskjær, Malou (2019) *At tænke med Karen Barads agnetiala realisme*, København: Samfundslitteratur.
- Juleskjær, Malou, (2020) "Mattering Pedagogy in Precarious Times of (Un)learning", *Matter, Journal of New Materialist Research*, volume 2020, 52-79.
- Knill, Paolo J. et al. (1993) *Minstrels of Soul: Intermodal Expressive Therapy*. Toronto: Palmerstone Press
- Korsgaard, Ove, Kristensen, Jens Erik & Siggaard Jensen, Hans, (2017). *Pædagogikkens idehistorie*. Århus: Århus Universitetsforlag.
- Kroksmark, Tomas ed. (2003). *Den tidlösa pedagogiken*. Lund: Studentlitteratur.
- Latour, Bruno (1993). *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.
- Levine, Ellen G. & Levine, Stephen K. ed. (1999) *Foundations of Expressive Arts Therapy. Theoretical and Clinical Perspectives*. London/Philadelphia: Jessica Kingsley
- Lewis, Tyson E. (2011) *The Aesthetics of Education: Theatre, Curiosity and Politics in the Work of Jacques Rancière and Paolo Freire*. New York: Bloomsbury
- Lind, Ulla (2010). *Blickens ordning: bildspråk och estetiska lärprocesser som kulturform och kunskapsform*. Stockholm: Institutionen för didaktik och pedagogiskt arbete, Stockholms universitet.
- Lindgren, Anne-Li & van Vulpen, Wilhelmina, (2016) "Estetiska transformationer: Att följa en kanins väg från en konsthall, via en förskola och vidare till konsthallens ateljé", *Pedagogisk forskning i Sverige*, vol 21, nr 1–2.
- Lundkvist, Hannes & Apeldoorn, Per (2018) "Att upptäcka det som inte går att fånga – ramar för ett estetiskt-etiskt förhållningssätt till pedagogik". *Studier i pedagogisk filosofi* 7 (2018): 21–35
- Maclure, Maggie, (2013) "Researching without representation? Language and materiality in post qualitative methodology". *International Journal of Qualitative Studies in Education*, 26(6), 658-667.
- Malabou, Catherine (2004) *The Future of Hegel. Plasticity, Temporality and Dialectic*. London/New York: Routledge
- McGowan, Todd (2019) *Emancipation after Hegel. Achieving a Contradictory Revolution*. Cambridge/New York: Columbia University Press
- McNiff, Shaun (1981) *The Arts of Psychotherapy*. Springfield: Charles C. Thomas
- McNiff, Shaun (2003) *Creating with Others – the Practice of Imagination in Life, Art and the Workplace*. Boston: Shambhala
- Meyer DeMott, Melinda Ashley (2007) *Repatriation and Testimony. Expressive Arts Therapy. A Phenomenological Study of Bosnian War Refugees with Focus on Returning Home, Testimony and Film*. Oslo: European Graduate School
- Meyer DeMott, Melinda Ashley (2015) *Expressive Arts (EXA) för nyanlända ensamkommande minderåriga pojkar 15–18 år vid ankomst/transitmottag (2008–2014)*. Oslo: Norwegian Centre for Violence and Traumatic Stress Studies
- Morgan, Gareth (1993) *Imaginization. New Mindsets for Seeing, Organizing and Managing*. San Francisco: Sage
- Moxnes, Anna Rigmor (2018) *Sensing, Thinking, Doing Reflection in Early Childhood Teacher Education*, University of South-Eastern Norway.
- Olsson, Liselott/Mariett (2009). *Movement and experimentation in young children's learning. Deleuze and Guattari in early childhood education*. London: Routledge/Taylor & Francis Ltd.
- Otterstad, Ann Merete (2018) *Å stå i trøbbelet. Kartograferinger av barnehagens metodologier. Postkvalitative passager och (ny)empiriske brytninger*. Oslo: Universitetet i Oslo
- Rogers, Natalie (1993) *The Creative Connection. Expressive Arts as Healing*. Palo Alto: Science and Behavior Books
- Rogers, Natalie (2011) *The Creative Connection for Groups. Person-Centered Expressive Arts for Healing and Social Change*. Palo Alto: Science & Behavior Books
- Romanowska, Julia (2014) *Improving Leadership Through the Power of Words and Music*. Karolinska Institutet
- Sauzet, Sofie Ørsted, (2015) *Versioner: diffraktive analyser af tværprofessionalismens tilblivelse som fænomen i Professionshøjskolen*, København: Danmarks Pædagogiske Universitet, DPU Faculty of Arts, Aarhus Universitet
- Sjögren, Hanna, (2016) *Sustainability for Whom?: The Politics of Imagining Environmental Change in Education*, Linköping: Linköping University, Department of Thematic Studies.
- Staaenæs, Dorthe & Krejlsler, John, (2013) "Editorial: Desire and (Self-)Management: Post-Lenses on Nordic Intakes of Transnational Tendencies", *International Journal of Qualitative Studies in Education*, vol 26, issue 9, 1097-1110
- Staaenæs, Dorthe & Kofoed, Jette, (2015) "Experimenting with Affects and Senses: A Performative Pop-up-Laboratory (Self-Critically Revisited)", in ed. B. Timm Knudsen & C. Stage *Affective Methodologies: Developing Cultural Research Strategies for the Study of Affects*, Basingstoke, Hampshire: Palgrave Macmillan.
- Wied, Kia, (2019) *Skoleldelse som motivationsarbejde. En dobbelt bevælsfortælling om elever og ledelses bevægelser i udskolingen fortalt gennem rytmeanalysens begreber*, Aarhus Universitet, DPU.
- Žižek, Slavoj (2012) *Less Than Nothing. Hegel and the Shadow of Dialectical Materialism*. London/New York: Verso