

## Thinking and painting with movement – postqualitative inquiries into literature’s thing-power in teacher education

Alexandra Nordström, University of Helsinki, Finland, [alexandra.nordstrom@helsinki.fi](mailto:alexandra.nordstrom@helsinki.fi)  
(corresponding author)

Jenny Renlund, University of Helsinki, Finland, [jenny.renlund@helsinki.fi](mailto:jenny.renlund@helsinki.fi)

Jenny Byman, University of Helsinki, Finland, [jenny.byman@helsinki.fi](mailto:jenny.byman@helsinki.fi)

Heidi Höglund, Åbo Akademi University, Finland, [heidi.hoglund@abo.fi](mailto:heidi.hoglund@abo.fi)

Katrina Åkerholm, Åbo Akademi University, Finland, [katrina.akerholm@abo.fi](mailto:katrina.akerholm@abo.fi)

Sofia Jusslin, University of Helsinki, Finland, [sofia.jusslin@helsinki.fi](mailto:sofia.jusslin@helsinki.fi)

Charlotta Hilli, Åbo Akademi University, Finland, [charlotta.hilli@abo.fi](mailto:charlotta.hilli@abo.fi)

Corresponding author: ORCID: <https://orcid.org/0000-0003-0606-979X>

### Abstract

This inquiry embraces thinking with theory and painting with movement to attune to the materiality and thing-power of literature and what it can set in motion for student teachers. Seven academics at the intersection of early childhood education, teacher education, and post-qualitative inquiry engaged with an arts-based practice of digital painting and collaging to become sensitive to the minor and major forces of literature’s thing-power in student teachers’ learning diaries and reading practices. This study demonstrates a new approach to inquiring into literature’s vital materialism and contributes novel configurations of literature as an agentic and lively force in higher education.

**Keywords:** Thing-power; teacher education; movement; arts-based research; postqualitative methodologies

## Introduction

Literature is central to higher education, although its potential to become agentic often goes unnoticed in research (Taylor et al., 2022). Previous research has often focused on human-centred approaches, viewing the relationship between humans and materialities (like literature) as hierarchical rather than relational and co-created (cf. Fukkink, 2010; Horsley et al., 2010; Richardson, 2004; Tummons, 2014). To address this research gap, the current study adopts a postqualitative approach by exploring literature's thing-power in nine student teachers' learning diaries during a university course on children's literature and drama in early childhood teacher education in Finland. *Thing-power* suggests that matter becomes vibrant since it can make things happen and create various effects in collaboration with other entities (Bennett, 2010). Furthermore, vital and vibrant things, such as literature in this study, can affect and become affected by the assemblages of humans, objects, spaces, and nonhumans that they are temporarily part of and the differences they make together in teaching (Strom & Martin, 2022; Taylor et al., 2022).

The participants in the current study were working full- or part-time as early childhood education teachers. They documented their thoughts in individual learning diaries, drawing on course and children's literature and their experiences working in ECEC (early childhood education and care) centres. Nordström collected the diaries for her higher education pedagogy studies and invited the other authors to collaboratively analyse them. The research collaboration involved seven researchers from Finland with different research interests and backgrounds, all connected to teacher education and postqualitative approaches. While reading the learning diaries, we became intrigued by how the student teachers approached the course and children's literature in their dual student-professional positions. We thus formulated the following analytical question: *What did the literature set in motion in the student teachers' learning diaries?*

According to Jackson and Mazzei (2023), a study's contexts, spaces, and matter also become vibrant by studying thing-power, making this study an assemblage of humans (e.g., student teachers, researchers) and nonhumans (e.g., research materials, visual objects, theoretical concepts) contributing to the focus of the study. Ontologically speaking, we started this study in the middle as researchers, and the participants were also in the middle of various assemblages. Epistemologically, the student teachers were inseparable from the matter and assemblages they were part of or in the middle of. Bennett (2010, p. 119) points to methodological attunements when thinking with thing-power because it requires sensitivity to concepts and methods that listen or respond to objects. Objects call for our attention to listen, be patient, and be enchanted by the world.

Therefore, we employed *thinking with* as a postqualitative approach to plug into theories of thing-power to follow the movements literature created in the diaries (Jackson & Mazzei, 2023). However, we sensed that a verbal approach limited our understanding of the movements. Thus, we decided on an arts-based approach of painting with movement by scribbling, writing, and painting, where we traced how literature connected to humans (teachers, children), matter (books), affects, and spaces in the learning diaries (Bennett, 2010; Rousell et al., 2019). In the

process of our attuning to objects like literature with analytic approaches that move beyond written language, new potentials and tensions may emerge that may have been overlooked or underestimated in educational research (cf. Gale, 2016; Taylor et al., 2022). This study contributes to a novel idea of literature sharing a distributed agency with humans and nonhumans in higher education.

Next, we discuss previous research on (course) literature in higher education and unpack the theoretical frameworks of thing-power and movement. We then move on to a methodological discussion about thinking and painting with theories, movement, and the learning diaries. Ultimately, we conclude with a discussion of the implications of our findings and recommendations for future research.

### Previous research on course literature in higher education

Reading literature in teacher education courses often encompasses reading textbooks. Studies of textbooks have, over the last four decades, been conducted across disciplines in higher education (e.g., Fukkink, 2010; Horsley et al., 2010; Richardson, 2004; Tummons, 2014). The topics under scrutiny have included, for example, their content and changes in content over time, as well as early childhood teacher education in specific national contexts (e.g., Fukkink, 2010). However, although our focus on literature's thing-power in ECEC teacher education is inevitably connected to the content of the course literature, our interest moves beyond focusing on what the course literature and its content *is* to instead inquire about what it *does* for the student teachers.

Previous research on reading introductory and theoretical course literature in various disciplines has pointed out the challenges experienced by students. In economics, Richardson (2004) called attention to friction between students' learning and introductory textbooks – designed to introduce students to a discipline – as they struggle with several aspects of engaging with the textbook and its often authoritative content that “students are expected to learn rather than challenge” (p. 518). A question that seems to echo higher education in our experiences as teacher educators is whether students have *done the reading* (e.g., Gann et al., 2013; Goode et al., 2021; Richardson, 2004). For example, Gann et al. (2013) found that student teachers seemingly avoided challenging aspects of demanding course literature, sometimes because the texts were experienced as difficult.

Similarly, Horsley et al. (2010) demonstrated that students can have limited time to read and engage with the assigned course literature. It is challenging for students to grapple with abstract and complex topics in the course literature, especially literature building on posthumanist onto-epistemological thinking that challenges the humanistic roots of education (Jusslin & Eklund, 2022). Thinking with posthumanist theories, Lanås et al. (2017) discussed teacher educators' potential frustration with students who are uninterested in theory. They suggested that it might not reflect disinterest in theory but that teacher educators fail to recognise students' engagement with theory – what, how, and when theory is put to work. We acknowledge whether students have done the reading risks signalling a one-way relationship between students and course literature or authoritative knowledge (Richardson, 2004), overlooking its messy, material,

affective, and situated dimensions – or literature’s thing-power.

Overall, previous research on this topic upholds a human-centred focus and relations between humans and materialities (e.g., literature, theory, books) are generally perceived as hierarchical. Our point of departure in this study is that postqualitative theories offer possibilities to acknowledge the agency and forces of literature in teacher education. As Snaza (2019) has argued: “The book as a material object [is] caught up in circuits not only of communication but of material power” (p. 60). Accordingly, this study adds to a body of research that acknowledges the agency of things and materialities and their effects on higher education (e.g., Gravett et al., 2024; Grellier, 2013; Jusslin & Hilli, 2024; Jusslin & Widlund, 2024; Snaza, 2019). Like other researchers (e.g., Gale, 2016; Taylor et al., 2022), we engage with Bennett’s theory of thing-power in educational settings. Taylor et al. (2022) and Gale (2016) suggested that attuning to objects can connect to spatiotemporal, embodied, and affective forces to challenge problematic or hurtful practices in higher education.

The contextual features of the current study stand out in two ways from previous research on course literature, specifically textbooks, in higher education. Research on students’ academic literacies involving reading course literature largely agrees that the disciplinary context matters for which texts are read and how they are read within a discipline (e.g., Lea & Street, 1998). Therefore, the course literature is expected to include children’s literature in a course entitled Children’s Literature and Drama. Additionally, university students in Finland are not affected by the economic and commercial aspects of course literature in the same ways as students in countries where students are expected to buy the course literature. Finnish students have free access to it through university libraries. Thus, their economic situation does not affect their access to assigned readings (cf. Goode et al., 2021).

### Thinking with thing-power and movement

In the study, we employed thinking with theory (Jackson & Mazzei, 2023) to follow what literature set in motion in the learning diaries, leading us to Bennett’s (2010) theory of thing-power. By engaging with thing-power as a theoretical concept, literature became a vibrant form of matter moving and shaping the human-nonhuman world, questioning the view of things as inert and passive. Bennett’s (2010, p. 3) vital materialism attends to moments when things become independent actants, affecting other bodies by enhancing or weakening their power. This does not mean that all objects are always vibrant or have the same level or type of power; their powers may become less or more pronounced when they come together in different formations or assemblages. By plugging into concepts, thoughts, and encounters in the learning diaries alongside the theory of thing-power (Jackson & Mazzei, 2023), we followed how literature connected to other matter, spaces, and humans, forming assemblages that created movements with greater and lesser effects on the everyday practices in the ECEC centres and the student teachers’ thinking.

The theorisation around assemblage points to a multiplicity of gatherings of agencies and thoughts rather than a humanistic perspective in which only one agent (a human) creates movements

(Deleuze & Guattari, 1987, p. 25; see also Manning, 2009; Bennett, 2010; Tsing, 2015). Bennett (2010, p. 24) suggests that assemblages' topographies vary depending on the effects that the groupings or multiplicities create, proposing that power is not equally distributed. Agency varies between objects and humans. Thus, assemblage movements connect to specific events and uncanny or discordant flows that bring bodies into relation, for example by troubling reading practices as embodied and speculative, providing an open-ended 'fragmentary path' of thinking-feeling with literature (MacLure, 2024, p. 1653). Similarly, Manning (2009, p. 6) underlines how movement as a "virtual force" can be felt affectively in the body before the actual physical movement occurs. Therefore, there is a certain chanciness to how movements affect and flow in education and research and how they shape bodies. Thinking with Bennett's (2010) conceptualisation of assemblage has been helpful in this study to acknowledge how literature's vitality is connected to human-nonhuman research processes through movements of complex relations. While reading the diaries, we sensed that a concept, thought, or encounter related to literature became meaningful in certain situations, and we followed it by writing, drawing, and thinking with previous research (cf. Jackson & Mazzei, 2023). Later in this article, we elaborate further on the methodological approach of thinking and painting with movement.

Lastly, by thinking with literature's thing-power, assemblages, and their movements, we adopt a flat ontology (Deleuze & Guattari, 1987) and approach the movements that literature sets in motion as nonlinear, porous, and unstable human and non-human forces. Flat ontologies mean that assemblages do not have a base or a structure; instead, they exist on a single plane consisting of movements or lines of flight (Deleuze & Guattari, 1987, p. 105). For Deleuze and Guattari (1987), lines of flight imply porous and unstable connections within assemblages, sometimes allowing new routes to take shape and break with previous structures or boundaries. The affects flow between humans and nonhumans, not as linear processes but by movements connecting them through powerful or weak forces (Deleuze & Guattari, 1987, p. 24). Bennett (2010, p. 35) underlines that members in this spatiotemporal assemblage may become out of phase with one another and drawn to new allies, creating new relations and possibly new assemblages of unbounded openings and questions in early childhood teacher education.

Drawing from Bennett's thing-power, Taylor et al. (2022) suggest that vibrant matter is vital to time and space in education; it provokes old teaching practices, reimagines new ones, and becomes potent, momentary, and sometimes disturbing. Furthermore, assemblages are temporary and multiple depending on the humans, objects, and spaces that create different and unforeseen effects in situations, contradicting ideas of best practices or one-size-fits-all solutions in higher education (cf. Strom & Martin, 2022). The current study offers postqualitative perspectives on literature's role in a course in early childhood teacher education that welcomes materials, humans, spaces, and contexts to explore their joint distributive agency in the learning diaries (cf. Strom & Martin, 2022).

### **Contextual matters that mattered**

This study is contextualised in ECEC teacher education in Finland, where early childhood education is rooted in a child-centred pedagogical tradition that prioritises children's agency and initiatives in

educational activities, fostering diverse learning opportunities (Kumpulainen, 2018; Pramling Samuelsson & Asplund Carlsson, 2008). Pedagogical activities in Finnish ECEC blend children-led, free play, and adult-led indoor and outdoor activities (e.g., Nordström et al., 2021). The Finnish curriculum design aims to provide equitable access to high-quality education, emphasising the educational process over end results and avoiding formal assessment (e.g., Nordström, 2022). In Finland, teachers have professional autonomy, allowing them to make independent decisions about teaching methods and materials (Niemi & Nevgi, 2014). Early childhood education teachers hold at least a bachelor's degree, typically from a university teacher education programme (Niemi & Nevgi, 2014).

The course "Children's Literature and Drama" (5 ECTS), conducted in 2022, was an integral component of the studies for early childhood education teachers. It was a blended course with online and onsite activities specifically designed for students with work experience in early childhood education. The curriculum comprised individual coursework, segmented into ten parts on the Moodle platform divided over ten weeks, three onsite sessions, ten hours of independent group work, and two examination assignments (see Appendix 1). Two assignments were assessed: a group project and an individual learning diary. This was the second time Nordström taught the course. The course enrolled 22 first-year students in the early childhood education teacher programme. All participants met specific admission criteria, which included possessing a degree that qualified them for higher education, certification as early childhood education caregivers, a minimum of nine months of work experience in early childhood education or preschool teaching, completion of basic studies in education amounting to 25 ECTS credits, and sufficient language skills.

The course literature comprised five textbooks, seven blog posts, podcast episodes, popular science or news articles, four online lectures, one onsite lecture, chapters of a doctoral dissertation, and six pedagogical resources (see Appendix 1 for detailed information). Students were required to keep a learning diary during the course. The diary aimed to cultivate a personal, research-based perspective on the role of children's literature and drama pedagogy in early childhood education.

### **From thinking to painting with movement**

Nine students agreed to participate in the research study with their learning diaries. Nordström collected the learning diaries as part of her higher education pedagogy studies, during which time she developed her teaching practice. She also informed the participants of ethical conduct principles according to the national guidelines (Finnish National Board on Research Integrity, 2019). All participants signed an informed consent form stating that only the learning diaries and no additional information had been gathered from them. Nordström invited the other authors to analyse the anonymised learning diaries and shared them in a digital document. The learning diaries were written in Swedish, and all examples from the diaries used in the article were translated into English by the authors.

The research collaboration began with each of us reading the nine learning diaries, highlighting the

parts we became affected by. Literature became a topic we wished to explore because we sensed it made a difference in the learning diaries. We focused on events or encounters where literature created unforeseen effects that sparked our curiosity (cf. Bennett, 2010; Jackson & Mazzei, 2023). We became attentive to concepts (e.g., magic), objects (e.g., hammocks, candles), spaces (e.g., indoor, outdoor) connected to books and reading, and the intersections of theoretical and fictional literature in the learning diaries. However, we felt that thinking through words and writing was insufficient to explore the affective and non-linguistic dimensions of literature's thing-power. Instead, we turned to postqualitative and arts-based approaches to find an analytic process that would "cut across bodies, environments, materials, concepts, surfaces, feelings, sensations and ideas" (Rousell et al., 2019, p 1817). Hence, we started to play visually with various movements that we could sense in the learning diaries, that is, 'plugging' these texts and movements into each other (Jackson & Mazzei, 2023; see also Springgay & Truman, 2017). Drawing on the ideas of MacLure (2023) and Deleuze and Guattari (1987), we desired flexible and ambulant methods, allowing us to follow the contours of literature's thing-power. Arts-based attuning in this way through an active 'thinking-making-doing' (Springgay & Truman 2017) can disrupt, form new assemblages, and reveal new lines of flight (Kovalchin & Myers, 2024; Rousell et al., 2019).

Each of us came to the study with our perspectives and during the first stage of our explorations with movement, Nordström (author 1), Renlund (author 2), Byman (author 3), Höglund (author 4), Åkerholm (author 5), and Hilli (author 7) scribbled visual expressions of movement on sticky notes while thinking with the research materials (Figure 1). Jusslin (author 6) joined our explorations through dialogue, provoking us to question the focus and methodological implications of the study. We drew rhythms, flows, crossings, and tempos that we sensed in the way the literature had put something in motion in the student teachers' learning diaries. Following Jackson and Mazzei (2023, p. 2), "in writing, in plugging in, we enact something that is a constant, continuous doing. It is attuning to how lines respond to each other, how they fit together [...]". Written words and scribbled lines materialised through our moving bodies and continued to further affect our thinking (Guttorm et al., 2016). In this way, the student teachers' writings had an agentic force in our study, moving us researchers to scribble and write. Hence, exploring movement through scribbling became embodied acts of experiencing-with data (Vagg, 2022), which performed further movement.



Figure 1. A selection of our sticky notes with scribbles

Simultaneously, our scribbling started to develop into a method of *painting with movement*, inspired by the creative method of painting with data (Balmer, 2021). This arts-based approach meant that Renlund, who has a background in visual arts, used the scribbled lines and words to create a visual vocabulary of movement to paint collages with Photoshop and the online graphic design tool Canva. Renlund created four collages connected to the literature assemblages analysed and their movements. They worked as visual expressions and provocations for our ongoing thinking and moving with the student teachers' diaries. This postqualitative methodological endeavour diverges from other methods of handling or analysing data and "prioritises addition above extraction; juxtaposition over thematisation; and collaging rather than ordering" (Balmer, 2021, p. 1143). Often, the emerging and continually changing collages elicited lively discussions about our ontological, epistemological, and theoretical focus, provoking us to ask questions about where the movements in the student teachers' texts and our scribbling, writing, and collaging were taking us, what these movements were expressing about the affective and material forces of literature in education, and what they could teach us about our relations to literature as educators and researchers. The recursive dialogue between experiencing and thinking with movement through theoretical concepts, the student teacher learning diaries, and the evolving collages became a playful and experimentative way to sense literature's thing-power and become affected by it (Vagg, 2022). As we plugged into these movements through our thinking with theory and painting, collages of lines, boxes, dots, swirls, twirls, waves, braids, and spirals started to shape and spread with our thinking.

## Moving with literature's thing-power and assemblages

The following analytical question guided us: *What did the literature set in motion in the student teachers' learning diaries?* The question made us aware of how theoretical and children's literature fuelled the student teachers' writing and thinking by confirming, complicating, opening up, and closing their thoughts. By thinking with Bennett's (2010) thing-power, we understand the concepts, materialities, spaces, and bodies in the student teacher's texts as various assemblages taking form and creating shifting movements in the learning diaries. These movements seemed to work to both close in and open up, grow and diminish, and narrow down and complicate what literature could do and become in early childhood education.

The analysis is discussed in two sections, alongside excerpts from the learning diaries and the four collages connecting the complex relations within the assemblages. The collages interconnect visually as colours and forms spill out into one another. They work as a middle between the initial analysis, when we became intrigued by concepts, thoughts, or encounters in the diaries, and later, when the figures visually express the process of thinking with theory of our attempts to listen to and sense literature's thing-power (cf. Bennett, 2010). The first part of the analysis is called *Magical mo(ve)ments and imaginative trajectories of affective-spatial assemblages* and follows the affective and spatial effects of theoretical and children's literature. The second part is called *Tentacles, tendrils, clouds, and clashes of theoretical-fictional assemblages*, following the effects of the theoretical and children's literature on the student teachers' thinking.

## Magical mo(ve)ments and imaginative trajectories of affective-spatial assemblages

The theoretical literature the student teachers read and the children's literature they worked with as teachers prompted them to imagine new, lively methods to bring out the *magic* within the books, creating assemblages of objects and affective sensations. For example, the student teachers brought stories to life through engaging book talks and immersive drama, using puppets, role-playing, props, and scenery. They also added dramatic effects like sounds, visual prompts, and music, all carefully crafted to resonate with the children's embodied sensations and affects. The feel of the book, the characters' voices, sounds, light, colours, smells—its relational and magical tendencies became pronounced (cf. Bennett, 2010; MacLure, 2023).

One student teacher wrote about how the theoretical literature concerning book discussions (*swe boksamtal*), and the book discussions conducted themselves set something in motion by pulling together practicalities on how to prepare for the discussions and creating magical reading situations by considering materialities and affective possibilities. In line with Barad (2003) and MacLure (2022), who question excessive emphasis on language at the expense of difference, affect, sensation, movement, and materiality, we highlight the affective-spatial assemblages that emerge in these reading situations. Affective intensities are viewed as performed in relation to others, embracing the unpredictability of actions and understanding the broader relational, historical, and ideological contexts in which they arise (Kuby, 2014; Nordström, 2022). These intensities materialise in encounters and connections between bodies, enabling relationships between entities, objects, or networks and participating in semiotic, material, and social flows

(Albuquerque & Pischetola, 2022; Hickey-Moody, 2013):

“It has been very rewarding, and most children have enjoyed these discussions after we have read the book. It is good to have variation in reading sessions, occasionally doing it a little differently. We might read the book on a big screen or on a tablet, have some magical ritual such as lighting a candle or ringing a bell, puppet theatre, or using props.” (Student teacher 2)

Here, the books as material objects became energetic as they made things happen (cf. Bennett, 2010), animating the reading and thus making the reading with children more significant (cf. Snaza, 2019). By introducing rituals for reading, the books’ magic, or vital materialism, in drawing people and things together became stronger. Bennett (2011, p. 5) suggests that tapping into such vibrant thing-power comes more easily with ‘a certain anticipatory readiness’. Such a readiness can be sensed in the student teacher’s description. Inspired by the idea of book discussions, the student teacher began to pedagogically cultivate modes of reading that became open to literature’s thing-power, working with matter and things to invite and fuel magic in their reading sessions with children. In our painting with movement, we have approached such assemblages of magic as sways of anticipation and outpouring (Figure 2).



*Figure 2. The magic of those black dots on the paper*

While teachers may create the conditions for magic to emerge—through thoughtful preparation,

openness, and engagement with objects—where to grow or how to unfold cannot be dictated. These often-surprising magical mo(ve)ments can lead to unexpected outcomes that transcend the initial intentions or frameworks, such as the book discussion:

“Everything that happens between the book cover, the characters' actions, their appearance and voices, the environment, light, sound, colours, smells - all that turns your brain into an internal film led by those black dots on the paper.” (Student teacher 2)

In the student teacher's diary, the black dots on the page, the words, began 'to shimmer and spark' (Bennett, 2010, p. 5) under certain circumstances, creating new imaginative trajectories for both children and educators. Here, the assemblage's force created new potential routes where the black dots could remain in their original shape but still pull bodies together or keep them apart (Bennett, 2010). In this way, black dots on paper hold the potential to move the assemblage somewhere unexpected. The focus shifts to the relationships between agentic entities rather than viewing the entities as the origin of actions (Fenwick et al., 2015). Impacting someone or something opens oneself up to being affected in return, making this intensity mutual, connected, and transformative (Massumi, 2015).

Through the student teachers' learning diaries, we followed how children's literature, when entwining with various spaces, bodies, and matters, had the power to create mo(ve)ments in the everyday reading practices of the ECEC centres. Another student teacher wrote about a separate room that they created at an ECEC centre for small group reading with children:

“In my early childhood education centre, we recently created a room only for reading with small groups. That felt good. Unfortunately, we cannot use it very often spontaneously because it is not directly next to our room. Then you must sit on the sofa or floor.”  
(Student teacher 9)

The idea for this room seems to have been fuelled by ideas of reading books in designated spaces and ways. Through the excerpt from student teacher 9, we sense how social, political, and educational expectations of literature can put into motion embodied and spatial framings and positionings (cf. Taylor et al., 2022). While the student teacher writes that the reading room made them feel good, they also mentioned challenges that had turned the room into an almost impossible reading space and spurred unplanned mobilities and flows with other matters and spaces, including a sofa and the floor (Bennett, 2010). In Figure 3, we paint with the assemblages that we can sense through the student teacher's learning diary, letting them produce multiple affective resonances and dissonances of literature's thing-power. Books, children and teachers, spaces and bodies, educational ideologies and everyday practice all become tangled in messy dynamics that blend, collide, circulate, and curve, simultaneously creating and breaking multiple layers of spaces, structures, and boundaries (Deleuze, 2002). As Bennett (2010, p. 35) suggests, “the members of an open whole never melt into a collective body, but instead maintain an energy potentially at odds” with the movements of such assemblages. In the learning diary, the more impromptu coming together of children and books also invited other vibrant matters into the reading practices, nudging the reading activities in different directions, such as reading outside in a

hammock:

“At the children's request, we have also bought a tent, books, a cartwheel, flashlights, sleeping bags, hammocks, and sleeping mats that can be used for reading indoors or outdoors at any time. Lying outside in the hammock and skimming through books has been popular. One of my children, who had not shown any great interest in reading before, was lying in the hammock for a long time, leafing through a book of their choice that they had brought to the forest.” (Student teacher 9)



*Figure 3. Opening and closing spaces, structures, and boundaries*

Our painting with mo(ve)ments in Figure 3 creates shifting textures, shapes, and spaces, plugging into the power of books and reading sessions in early childhood education to multiply, overlap, and extend beyond any predesigned pedagogical aims. In their learning diary, the student teacher recognises such multiple and nomadic potentials (Taylor et al., 2022) in children's literature when combined with spontaneous and open-ended reading spaces and matters. This awareness seems to have set in motion unscheduled reading practices that followed the children's desires and became sensitive to the varying, improvised, and productive ways in which children and books can entwine (Gale, 2016).

In conclusion, painting with the magical mo(ve)ments in the learning diaries of student teachers 2 and 9 plugged us into the endless relational potential (Manning, 2009) of children's literature in early childhood education. Through our analysis, literature's thing-power unfolds in early childhood education as part of complex assemblages creating affective tonalities and wild imaginaries and produce "layers of experiential potential" (Manning, 2009, p. 215).

### **Tentacles, tendrils, clouds, and clashes of theoretical-fictional assemblages**

In the learning diaries, the student teachers wrote about their reading practices as students and teachers. Literature's thing-power challenged previous thinking and spurred their thinking into new directions. Notably, both the theoretical and the fictional literature fuelled their thinking, creating what we refer to as *theoretical-fictional assemblages*. For example, several student teachers mentioned how reading a popular science article with a norm-critical perspective opened their thinking, particularly regarding representations of gender and ethnicity in children's literature. In the learning diary of student teacher 5, a textbook chapter describing the theoretical ideas of philosopher Hannah Arendt, set the student teachers' thoughts on representations of minority groups in children's literature in motion:

"Arendt's thoughts made me think a lot about how and by whom minority groups are described in the literature. During this course, I became acquainted for the first time with Zacharias Topelius's writing and how he connects different genres in various forms of expression. The stories about Lapland are a staging of different environments and a mixture of the exotic with the dangerous foreign, which I am interested in reading more about in the future." (Student teacher 5)

The example above shows how the theoretical and children's literature became intertwined in the student teachers' thinking, creating a theoretical-fictional assemblage. Any theoretical and fictional literature comes with its particular social, cultural, material, and political landscapes, which then entwine with the reader's situated knowledge and experiences. We understand it as something that Bennett (2010, p. 21) calls *distributed agency*, showcasing the collective multiplicity within the assemblage. Here, neither the theoretical literature, nor the children's literature, nor the student teacher are isolated or static forces. Thus, engaging with literature does not create "a passive transition that leaves two series intact. It is a transmutation that moves all assembled agencies" (Manning, 2009, p.125). When thinking and painting with the student teacher's diaries in the collage (Figure 4.), we sensed that this specific coming together of theoretical and fictional literature had pushed the student to 'wander off' on new paths of approaching literature with a more critical reading and rendering, paying attention to discursive patterns and structures of power in children's literature. Painting with the theoretical and fictional assemblage brought new kinds of movement into our collages, such as tentacles and tendrils that hook onto each other, but also coils and curls reaching towards the unknown.



*Figure 4. Tentacles, tendrils, coils and curls*

Another example of how the theoretical-fictional assemblage seemed to move thinking could be sensed in how student teacher 4 had come to perceive picturebooks in a new light:

“Although I have worked with children and believe that it is extremely important and a natural thing to read to children for the sake of language, imagination, and development, I still hadn't thought about reading children's books – for my own sake. The fact that the senses are affected by picture books sounds very logical to me when I hear that picture books are actually works of art. It could clearly be an experience for an adult (me) also to get to experience this, pictures.” (Student teacher 4)

What moves here seems to be the potential of the picturebook. The picturebook's thing-power expands beyond supporting children's language development and imagination, emphasising picturebooks as art and how their affective power starts to animate adults. MacLure (2024, p. 1653) writes that “to read is to experience the claim of *this* book at *this* point”. Through the assemblage of interlacing theoretical ideas, the student teacher's earlier experiences, and children's literature, the picturebook's claim became, for this student teacher, an aesthetic experience in itself. Thus, approaching literature as art propels literature from representational modes towards expressive, affective, and creative modes of becoming (Deleuze & Guattari, 1987).

In the previous examples, the coming together of theoretical and fictional literature acted as welcoming impulses. However, we also noticed instances in which the theoretical literature was in tension with the student teachers' previous understandings, became provoking or was challenging to understand:

"The theories on children and objects in the doctoral dissertation "Three-Year-Olds, Cameras and Pre-School – A Series of Diffractive Movements" that Magnusson, L has written were difficult to understand. The research on how the children and objects are understood to become-together-with each other became unclear. It might be that for me, as an educator, it's difficult to shift my focus away from the individual child's knowledge or maturity, and to stop considering what I know or want the child to learn for the future. What I take away from this is a different perspective on play, observing it outside of all developmental theories and as an intra-action between the children and the objects."  
(Student teacher 5)

In connection with this excerpt, our painting in the collages produced clouds and clashes (Figure 5.): movements that express distance, confusion, and elusiveness, as well as collisions and conflicts. This relates to the uncanniness of literature's thing-power as it changes through dynamic assemblages, its "forward momentum, and the fragmentary path it makes" (MacLure, 2024, p. 1653). How theoretical ideas can provoke jumping into questions and uncertainty rather than offering answers. The posthuman theoretical literature introduced in the course proposed new and somewhat unfamiliar ideas that pushed the student teacher to complicate the vibrant force of matter in early childhood education. However, the student teacher seemed uncertain as to how to respond to these ideas. Manning (2009, p. 20) suggests that "to find movement is to work with preacceleration". In the student teacher's text, we notice such a 'time slip', a 'just before' (Manning, 2009, p. 20), which reverberates with potential lines of flight (Deleuze & Guattari, 1987). In this sense, the student teacher's learning diary speaks of the potential of literature's thing-power in teacher education. Not with pre-defined aims of what literature should be, but as a provider of the 'just before', through which the student becomes confronted by something new and literature, matter, and "bodies become many-timed, many-spaced" (Manning, 2009, p. 21), involving the possibility and potential of a plurality where multiple theories co-exist in a theoretical-fictional assemblage.



*Figure 5. Clouds and clashes*

In conclusion, the theoretical-fictional assemblages highlight the intertwining of theoretical and fictional literature in the student teachers' learning diaries. In teacher education, the theoretical literature is often foregrounded, but these assemblages further highlight the thing-power of fictional literature in teacher education. Painting with the movements of the theoretical-fictional assemblages drew us in to the tentacles, tendrils, clouds, and clashes of the assemblages.

## Discussion

This study employed postqualitative approaches by thinking and painting with research materials, researchers, and theories to trace literature's thing-power in nine student teachers' learning diaries (Balmer, 2021; Jackson & Mazzei, 2023; Rousell et al., 2019). Theoretical and fictional literature, such as textbooks and picturebooks, became vibrant because they connected to affective intensities, spaces, matter, and reading practices. Literature also became part of assemblages, creating mo(ve)ments connected to new reading practices and spaces following the ECEC centre's daily flow of bodies, objects, and activities.

By attuning to literature's thing-power, we sensed how its affective, magic, and embodied aspects allowed children to feel, touch, and be with books in engaging, unscheduled, and spontaneous ways. We thought with how the magic in reading with children might overflow, run away, and become sticky, creating affective-spatial assemblages. Vibrant matters and humans became forces

within these assemblages, creating mo(ve)ments and allowing multiple ways and spaces for reading. These can be in tension with and even disconnected from reading practices in early childhood education. The study suggests that literature's thing-power moved across multiple, flexible, and embodied reading practices and spaces that flowed between humans and nonhumans. The vital materialism of literature brought life to other objects and agency to humans within these assemblages (Bennett, 2010). Often, we sensed that teachers and children became agentic when the materiality of books and literature became pronounced. Spaces, practices, and literature became lively when flowing with the embodiment and situatedness of the everyday practices in the ECEC centres. Therefore, thinking and painting with student teachers' learning diaries performed renderings of movements that are, to quote Lasczik et al. (2024, p. 18), "always more-than, moving beyond the mimetic, the more-than-human, more than art, more than inquiry".

Literature's thing-power also inspired new thoughts in the student teachers by introducing new perspectives on reading and literature in early childhood education, sometimes creating forceful and inspiring movements that clashed with previous understandings, and at other times making minor movements that clouded the student teacher's thinking and complicated their understanding of the literature, pointing to the multiple and unpredictable effects of literature. By attuning to literature's thing-power, old practices can be questioned. Ideally, new practices can emerge that invite matter and affects into animated reading practices (cf. Taylor et al., 2022). Thus, teacher education can potentiate thinking otherwise with diverse literature, material agencies, and childhoods in early childhood education literacies practices (Murriss et al., 2021).

While our focus here has been on excerpts in the student teachers' learning diaries where literature seemed to move and make a difference, some of our initial reflections aligned with those of Lanas et al. (2017), and we sometimes felt frustrated by the student teachers' checklist-like approach to children's literature, often focusing on cognitive goals like vocabulary and reading skills (cf. MacLure, 2023). Such approaches are human-centred, with adults assuming authority over children's needs and interests and often overlook the enjoyment of reading, sensory engagement with books, and the diverse ways of experiencing literature (Lanas et al. (2017, p. 536; cf. Murriss et al., 2021). However, through our arts-based engagement with the student teachers' diaries we could start to sense potential movement also in seemingly static positionings towards literature. This shows that as educators we might not see the kind of explicit transformations in students' learning and thinking that we are hoping for and that the 'just before' can be difficult to recognise (Lanas et al., 2017). Similarly to recent research by Sidebottom and Mycroft (2024, p. 12), our study highlights the importance of "micro-transformations in pedagogy", such as emphasising practices of noticing or pausing, to create spaces for changing how we understand the role of reading and literature in teacher education.

Future research could further inquire into arts-based encounters in posthuman research and their potential and tensions. We worked visually with the agentic forces within literature's assemblages by engaging with arts-based research and depicting forces we could not describe with words only, leading to discussions about how to present visual expressions alongside text in the analysis and

how to explain haptic processes in a scientific text. Critical insights relate to the context of analysing learning diaries written within an assemblage consisting of course requirements, assignments, materials, and grades that steered the student teachers towards, for example, written text, compared to involving other matters (e.g., pictures, objects, spaces). This study contributes to a novel idea of literature sharing a distributed agency with humans and nonhumans in higher education (cf. Gale, 2016; Gravett et al., 2024; Taylor et al., 2022). Following Strom & Martin (2022), we suggest that student teachers, as part of their education, could benefit from mapping assemblages that they are involved in to identify other agents and different effects on teaching. This view breaks with the idea of autonomous teachers by accepting them as assemblages always in relation to other humans and nonhumans when producing temporary, enchanting, and unforeseeable mo(ve)ments in education (cf. Bennett, 2010).

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The authors report there are no competing interests to declare.

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