



Art in Early Childhood

'Wow, this is like dreaming!' Different ways of working with visual arts and the work of artists in the preschool atelier

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ABSTRACT

Encounters with visual arts are part of the cultural context of many adults in western society. But how do young children's encounters with visual arts in the preschool take place and can they be part of the preschool's educational practice? This is the starting point for the research presented in this article, which concerns young children's creative relationships with visual arts and how encounters with artists' work inspire their aesthetic practices in an early childhood context. The data consists of visual and textual documentation analysed by means of a thematic analysis. The findings are seen in the light of a sociocultural perspective and highlight how interactions and engagement with visual arts and artistic processes can stimulate children's visual and cultural voices. Moreover, the findings suggest that the art room, i.e. the atelier, becomes a place in which children can develop an analytical eye, creativity, visual capacity and knowledge whilst engaging in bodily and sensory experiences.

Keywords

atelier, atelierista, bodily experiences, cultural voice, preschool, visual arts

Introduction and aim

Visual arts and encounters with the arts are part of the cultural context of many adults in western society. But how do young children encounter and interact with visual and other arts? The research presented in this article has its starting point in this question and concerns children's creative encounters with visual arts in the art room, i.e. atelier, of a Swedish preschool and an art museum. The aim is to develop knowledge about how children encounter visual arts in the preschool and what these encounters can afford in the day-to-day education.

Many preschools in Sweden have an atelier – a room that is equipped for creative and aesthetic processes – which often contains digital (e.g. tablets, projectors, digital microscopes) and non-digital (e.g. clay, paint, wood) artefacts, tools and materials (Häikiö Karlsson, 2018; Magnusson, 2021). Some preschools also employ an atelierista - an

educator with a particular interest in the arts and aesthetics. In Sweden, the preschool is for children between the ages of 1 and 5 but is not compulsory. When children turn 6, they start to attend ten-year compulsory school.

The educational practice that is inspired by the use of visual arts in the Swedish preschool can be said to have been informed by the work undertaken in preschools in Reggio Emilia, Italy (Vecchi, 2010; Vecchi & Giudici, 2004). In a Swedish context, the children in Reggio Emilia-inspired preschools are given opportunities to develop their visual skills in intertwined encounters with the arts. Their encounters with the (visual) arts, different materials and artefacts in the atelier also enable them to develop an 'analytical eye' (Karlsson Häikiö, 2018, p. 77); a creative eye that is trained to both see and go behind what is seen at first glance by means of analysis and discussion.

The research presented here explores the following questions: How do children meet and interact with visual arts and artists' work in a preschool atelier? What are the affordances of these interactions in the children's everyday practices?

Mapping the terrain of young children and visual arts

Dewey (2005, p. 36) argues that experience and doing are central and crucial to our perception of and participation in the world. He suggests that encounters with arts can be described as 'composed into an experience' (italics in the original) that can be intense. He further argues that arts should be included in everyday life and not be elevated and only seen in certain places, such as museums and art galleries.

According to research conducted by Häikiö (2007) and Waterhouse (2017), developing an experience as a young child encountering visual arts can include sharing a place in which bodily and intellectual experience is essential. Savva and Trimis (2005, p. 14) suggest that children's encounter with arts in 'everyday life could affect their way of thinking and acting'. They also highlight that, the ways in which children meet and gain access to arts, plays a crucial role in this development. Waterhouse (2017) is of a similar opinion and argues that children's encounters with visual arts can open up for dialogues about the content and intention of artwork, and in this way expand their views and ideas in other areas.

Waterhouse (2017) highlights that children's encounters with visual arts are affected by how the arts are introduced, whether they are spontaneous or planned and how the children are able to interact with the various artists' work. The educator also plays a central role, in that they need to balance the children's interests and scaffold their explorations and learning in their encounters with the visual arts (Terreni et al., 2021; Waterhouse, 2017). Bendroth Karlsson (2017) maintains that rich and versatile visual arts experiences can nurture children's imagination, while Savva and Trimis (2005) argue that visiting visual arts museums provides children with a comprehensive set of learning opportunities.

Looking at visual arts and working with artistic processes with young children can be inspiring, challenging and engaging and help them to find and express their voices (Bell, 2011; Vecchi, 2010; Waterhouse, 2017). Under the care of adults, children can become producers of visual arts and take part in society by developing their aesthetic and cultural voices – voices that are expressed in and through visual arts and the creative processes whilst working with them (Savva & Trimis, 2005). Besides being verbal, their voices can

also include bodily movement, cultural experience, play, joy and the development of an analytical eye (Bendroth Karlsson, 2017; Karlsson Häikiö, 2018; Waterhouse, 2017).

According to Bahrum, Wahid and Ibrahim (2017, p. 645), inviting children to take part in an education where vision, visuality and aesthetic expression are encouraged offers 'the ability to open up new ways of seeing, thinking and learning'. Working with the visual arts stimulates creativity, which is a central aspect of knowledge development and knowledge production in many different areas (Hunter-Doniger & Sydow, 2016; Magnusson, 2021). Meeting visual arts can offer children aesthetic, cognitive, bodily and intellectual experiences (Bell, 2011; Vecchi, 2010). According to Eisner (1999), these meetings can involve: 'A willingness to imagine possibilities that are not now but which might become. A desire to explore [...]' (Eisner, 1999, p. 148).

In their interactions with visual arts and the visual expressions of artists, children also develop social and cultural knowledge. This means that children (and adults) are educated into and maintain certain notions of what may be regarded as visual arts. These notions and expectations emanate from the understanding of looking and seeing as culturally fostered (Sturken & Cartwright, 2018). This means that an atelierista in a preschool has a responsibility that includes nurturing and facilitating different aspects of children's encounters with artists' work and offering them a variety of materials in their aesthetic processes.

Children's participation and their bodily interactions

According to Bendroth Karlsson (2017), Vecchi (2010) and Waterhouse (2017), children learn to express themselves visually by encountering many different images, drawings and artistic expressions. The research presented in this article is based on this assumption, as well as on the idea that young children's interactions with visual arts involve a bodily relationship that ideally includes visual experiences in two- or three-dimensional forms. Thereby a visual arts experience can be a bodily and a sensory encounter, where touching, carrying and creating have a central role (e.g. Fredriksen, 2011; Vecchi, 2010; Waterhouse, 2017).

Fredriksen (2010) suggests that working with the arts with young children can enable them to become co-constructors of the curriculum so that the pedagogical planning becomes more dynamic and open. Such openness can include following the children's visual interests and developing their graphic languages and visual competences by exposing them to different works of visual arts. Children do not necessarily copy the work of others. Rather, other people's artwork scaffolds the children's development of a graphic language (Waterhouse, 2017). In this way, children learn about and through the arts simultaneously (Lindström, 2012), which can also 'encourage inquiry [and] question making' (Bell, 2011, p. 42) in many areas of preschool education.

Sociocultural perspective, empirical data and analytical approach

The data used in this small-scale qualitative study was analysed using thematic analysis as inspired by Braun and Clarke (2006). In a second step, the findings were examined in the light of a sociocultural perspective. Using a sociocultural perspective implies that human activity and learning are situated in a cultural and social environment and that learning occurs as an internalising process from a social to an individual level and is

mediated through interactions with humans, cultural signs and artefacts (Selander, 2017; Vygotsky 1978). In these interactions, artefacts, cultural signs and humans (peers and adults) scaffold the children's abilities to learn and develop knowledge. Children learn in a zone of proximal development, from an 'actual developmental level [...] to the level of potential development' (Vygotsky, 1978, p. 86).

The research data consists of four photographic binders with a describing text that I produced whilst working for more than a decade as an atelierista in a Swedish preschool. At the beginning, this material was not considered as data in research, but was intended as a documentation of what happened in the atelier at the time. The photographs and the describing text had two different aims: to document and record the education practices that had taken place in the atelier and to produce knowledge about the children's achievements so that both the educators and the children could return to what had been invented or created on each occasion in the atelier. Thus, the content is both everyday documentation and pedagogical documentation (Dahlberg & Moss, 2005). The documentation was often structured with content highlighting or mapping how, what, why and outcome.

When analysing the data to answer the research questions, I (the researcher) used the photographs and texts that I had produced while working as an atelierista. This move implies: (1) a personal (human) move from an atelierista (educator) to a researcher and (2) a move in which the more formal documentation becomes research data (e.g. Olsson, 2009). The step from formal documentation to research data implicates a methodological move and a changed understanding of the content. As research data, the combination of text and photographs in the binders are seen as ethnographic field notes (Cohen, Manion and Morrison, 2018). As this transition makes ethical issues significant, all the children and their guardians who were potentially involved in the study were asked for their approval. However, as some individuals refused to participate nothing relating to them has been included in the presented results.

The first step in the analysis was to read through the visual and textual data in the binders at least three times. Here the interest was directed towards events and activities that concerned working with visual arts in different ways in the atelier. In this step, the data was coded using thematic analysis as inspired by Braun and Clarke (2006). The codes were then linked together in clusters to become themes. A code could for example be inspiration or experience materials. When the coded data had been clustered, the following two broad themes were identified: a) bring the visual arts to the children and b) take the children to the visual arts. The themes and narrated examples from each theme are presented in the next section.

Narrated and visualised examples from the atelier and a museum

Some of the examples from the data are presented in this section and are later connected to earlier research and a sociocultural perspective. The narrated examples have been chosen because they show different ways of encountering visual arts and how children of different ages worked with different materials, artefacts and interacting with diverse forms of visual arts and artistic processes in the atelier.

Theme 1 - Bring the visual arts to the children

Bringing the visual arts to the children involves different ways of working in the atelier and includes being inspired by visual arts and artists' methods. This theme connects atelierista-led education, children's ideas and their creative explorations with artists' work. It also includes narrated examples of how photographs or visual projections of artwork can be used in the atelier.

Clay and sunflowers

By visually projecting visual arts objects onto a rolled-out piece of paper on a wall in the atelier, the children were offered a two-dimensional visual expression/experience that was intended to lead to drawing activities, storytelling and bodily interactions. Such a visual event implies a sensory relation, with the children touching and interacting with the visual projection. For example, on one occasion, a group of four-year-olds were inspired by the visual projection of the artist Vincent van Gogh's sunflowers on the wall. On this occasion, we had ceramic clay and a big vase with real sunflowers in the atelier, which meant that the children could look at and touch the virtual two-dimensional and the actual three-dimensional flowers. After the first initial examination, a few children looked more closely at the sunflowers and discovered that they contained seeds. Others began to make sunflowers out of clay and called them 'sunflower friends' to Vincent van Gogh's sunflowers. Later on, this event inspired some of the children to dance with the shadowy traces of the clay flowers visually projected on the wall.

Klein Blue and the breadcrumbs

The atelier was equipped with art books with reproductions of paintings and sculptures from the 17th century to the 2000s. These were used in different ways.

Occasionally, children would come into the atelier to borrow a book for inspiration in their work with graphical drawings. However, this was not something that the atelierista had to lead or introduce but was part of an educational practice that was open to anyone at any time.

When working with the one- and two-year-olds, the atelierista sometimes allowed them to look at visual artists' works in the books. On one occasion, 16-month-old Sara and some of her peers were invited to look at pictures of Yves Klein's sculptures and work with non-toxic blue paint and breadcrumbs on white tiles. The breadcrumbs and the paint were chosen to invite the creation of three-dimensional texture, and the tiles were used to delimit and make visible the two materials and how they came to be mixed. Sara accepted the invitation, started to look at the pictures of the sculptures and then followed the contours of the sculptures with her fingertips. She then looked thoughtfully at the material and started to combine a pile of breadcrumbs with the blue paint in different ways (Figure 1). Sara's interaction with the materials inspired her peers. They started to look, smile, laugh and combine the materials as well. One child licked his fingers, another used both hands to put the breadcrumbs and the paint into a small pile on the tile.



Figure 1. Sara and the breadcrumbs

Traces of paint and artistic methods

On one occasion in the preschool atelier, three four-year-old children looked at a series of photographs showing how the artist Sam Francis had walked around on a piece of rolled-out paper covering a large part of the floor in his art studio.



Figure 2. Traces of paint in a collaborative process

The children saw him drip, splash and drop paint onto the paper and watched him move his body back and forth over it. The children said that it was as though he was 'thinking and planning' where to place the next series of dripping red, yellow or blue paint. On this occasion, the entire floor of the preschool atelier was covered with rolled-out paper. Inspired by Sam Francis' artistic process, the children walked onto the paper and started to explore how to make tiny and large drip marks. This was described verbally by Aliide when she said: 'How to make the tiniest drops ever!'

This way of working with watercolour paint and traces of colour became an artistic process and a method that the children embraced with gusto.

Visualising performance art

On a few occasions, artists with an artistic focus on performance art were introduced to the children with the support of YouTube videos. One example with a group of five-year-olds shows how the atelierista describes how the Swedish artist Elin Wikström installed her bed in a large food store and slept there for two weeks.¹ The reason for inviting the children to this event was to initiate a discussion about an artist's intention and what it was possible to do in society. The children concluded that art could be playful and provocative and raised questions that led to new questions. For example, one of the children said that he wondered what his grandmother 'would think' if she visited the store in which Wikström's bed was placed.

Theme II - Take the children to the visual arts

Taking children to the arts implies encounters with visual arts in an art museum or a public space. In the following example, two five-year-olds were visiting an art museum and the exhibition by the Swiss artist Pippilotti Rist, which was a dynamic combination of three-dimensional objects and visual projections. The artwork entitled Gravity, be my friend² attracted the children's attention to the extent that they spent a lot of time with it. In the piece the artist had built an island of carpets on which a projector was placed. The visitor was invited to lie down on the island and look up at the roof on which a film was projected (Figure 3). Lying on the island, Adnan, one of the children, sighed deeply, laughed and said: 'Wow, this is like dreaming!' His peer, Tim, nodded and laughed while leaning back on the soft carpets. The two children were totally focused on the artwork and the visual and sensory experience of participating in this event.



Figure 3. 'Wow, this is like dreaming!'

¹ <https://www.youtube.com/watch?v=enTZag4VqCM>

² <https://www.magasin3.com/en/exhibition/pipilotti-rist-gravity-be-my-friend/>

Later on, the children encountered another of Pipilotti Rist's works, Apple Tree Innocent On Diamond Hill.³ This work contained a long tree branch with several transparent objects hanging from it. A film was projected onto the branch so that it appeared against a background of blue light. The children discussed whether the transparent objects hanging on the branch were flying or not and if some objects cast shadows and others did not. They knew that they were not allowed to touch the items but challenged this by gently blowing on the objects so that they began to sway.

Back in the atelier with inspiration

Back in the preschool atelier, the two children showed photographs and described their experiences of visiting the exhibition. One of the crucial things for the two children was the concept of an exhibition, so they suggested constructing an exhibition and inviting peers and guardians to it. This suggestion led to the first aesthetic event after the visit to the art museum. The two children and the invited peers painted transparent objects with acrylic paint, which were later hung from the ceiling and illuminated. When the exhibition was to be shown, two essential ingredients were to illuminate the created objects and make them move so that their shadows rotated (Figure 4). The museum visit remained an active memory for the children for at least eight months. The children who had not been to the exhibition talked about it, wanted to continue working with inspiration from it and retold visual events from the exhibition as though they had been there.



Figure 4. Illuminated and moving objects

Discussion

The children's encounters with visual arts and artistic practices in the preschool's atelier and at the art museum are clear themes in this study and the selection of narratives

³ <https://www.magasin3.com/en/artwork/apple-tree-innocent-on-diamond-hill/apfelbaum-unschuldig-auf-dem-diamantenhugel-2/>

presented above help to answer the study's first question: How do children meet and interact with visual arts and artists' work in a preschool atelier? The findings related to this question are further analysed and discussed in connection to the second question: What are the affordances of these interactions in the children's everyday practices?

Inspiration and knowledge development

When the children were inspired by Sam Francis and his method of walking over the paper and leaving traces and splashes of paint, one of the affordances was that the children learned how to mix water and paint to achieve the results they wanted. Sam Francis' way of working as an artist thereby scaffolded the children's knowledge development. Besides this practical knowledge development, the children also planned an aesthetic process that reflected how Sam Francis might have engaged in 'thinking and planning' what to do. When working in this way, the children were dependent on their interactions and communications with the material (artefacts, cultural signs) and their bodily (human) movements on the paper. This way the children learned together and from each other in the social and cultural context in what Vygotsky (1978, p. 86) describes as an 'actual developmental level [...] to the level of potential development'.

The creative process took a turn when Aliide said that she wanted to make 'the tiniest drops ever'. With that statement, she scaffolded, challenged and engaged her peers in becoming active producers of a visual language and taking part in the aesthetic process (e.g. Vecchi, 2010; Waterhouse, 2017). Accepting her invitation, the children learned about and through the arts simultaneously (Lindström, 2012) by developing an experience in a Deweyan (2005) sense – in this case a visual arts experience encouraging play and an awareness of how the paint worked together with water.

The work in the atelier took place in a spirit of togetherness and learning in what can be described as the zone of proximal development (Vygotsky, 1978), with the children verbally articulating what they were doing along the way. These verbal articulations also helped the children to learn and develop knowledge from a social level to an individual level (e.g. Vygotsky, 1978). Moreover, these experiences can be closely connected to experimentation in other subjects in preschool education. (Magnusson, 2021). This strengthens the argumentation of Bahrum et al. (2017) that creative processes in visual arts can give children access to 'new ways of seeing, thinking and learning' (p. 645) in connection with subject areas other than the visual arts.

When the youngest children encountered Yves Klein's sculptures (represented as pictures in a book), they seemed thoughtful. Sara then initiated the interaction with the blue paint and the breadcrumbs. After a while, her inspiration was adapted and transformed by her peers in the group (e.g. Vygotsky, 1978). In this event, the participating children developed their experiences of texture and the outcome of tasting and combining the two materials in rich and versatile bodily and sensory experiences. The visual arts thus became an inspiration in the interaction with the materials, although it was only Sara who referred to the artwork in the book. The other children were scaffolded by Sara's interactions with the materials (not by the arts) when they started to play and construct with them. Klein's sculptures thus became a starting point that affected the children's further work in the atelier and contributed to activating the children's sensory and aesthetic explorations (e.g. Savva & Trimis, 2005; Vecchi, 2010; Waterhouse, 2017).

Bodily and sensory experiences

When encountering the visual arts and artistic processes of Sam Francis, Pipilotti Rist and Vincent van Gogh, the children took part in creating an experience in the Deweyan (2005, p. 37) sense of activating their bodies, sensory experiences and cognitive abilities.

In the case of Sam Francis, the children moved their bodies and talked about where to put the drips of paint. Here, they developed cognitive abilities while analysing the optimal mixing of paint. The children also used their bodies and sensory experiences to explore how the traces of paint from their feet when treading in it became part of the artwork on the floor of the atelier. In this way the children combined the use of sensory and bodily experiences (Fredriksen, 2011; Waterhouse, 2017) with the capacity of the analytical eye (Karlsson Häikiö, 2018) and took part in a transformative and intense interaction (Dewey, 2005). The atelierista had not planned this event to lead to any given outcome, so the aesthetic experiences in the atelier largely depended on the children's engagement, peer culture, voices, ideas and aesthetic interest (Karlsson Häikiö, 2018; Magnusson, 2021; Vecchi, 2010; Waterhouse, 2017). At this occasion, the atelierista followed the children initiative and came to learn together with the children.

In the interaction with Pipilotti Rist's video-based piece of art at the museum and in the encounter within the atelier with Vincent van Gogh's sunflowers, the children took part in vivid events. The capacity in the visual projections seemed to afford a bodily and sensory intensity that was striking (Vecchi & Giudici, 2004; Waterhouse, 2017). At the museum, the children were almost overwhelmed by the encounter with the video projection on the ceiling and the bodily sensation of lying on the soft carpet. It appears they carried this rich and versatile bodily, visual and sensory experience with them in the encounter with the next piece of art, the large tree branch, and then back to the preschool. When, back at the preschool and retelling their experiences using their photographs from the exhibition, the two boys seemed to relive the incredible bodily, intellectual and sensory joy and inspiration they experienced at the exhibition. Out of this, they also developed the idea of constructing an exhibition together with their peers.

The engagement with the visual arts exhibition offered the two children and their peers an event that scaffolded the work in the atelier for a long time. The boys' personal experiences thus afforded a collective peer experience - in the intersection of 'new ways of seeing' (Bahrum et al., 2017, p. 645) and the development of aesthetic, cognitive and bodily abilities (Bell, 2011; Vecchi, 2010; Vecchi & Giudici, 2004). In these interactions, the two boys became competent peers (Vygotsky, 1978) and at the same time cultural producers of an exhibition at the preschool together with their peers. The two boys developed 'analytical eyes' (Karlsson Häikiö, 2018) by looking at and thinking about the exhibition and taking their experiences of it back to the preschool.

At this event, the encounter with the visual arts objects gave the children a voice. This was an act of transformation, similar to when the children danced with their clay sunflowers and afforded a collective shadow dance in which the children's creative and aesthetic voices interacted (Fredriksen, 2011; Vecchi, 2010). In these interactions, the children generated new ideas and thoughts about shadows and light, the construction of a sunflower, visual arts and movement in new ways of 'thinking and acting', as suggested by Savva and Trimis (2005). These new ideas also showed the children's interest in and

possible knowledge of other subjects and curriculum areas, such as science (discussing light and shadows) and mathematics (looking at and counting the sunflower seeds). This in turn showed how the children, through their encounters with visual arts, became co-constructors of the pedagogical planning in the preschool as suggested by Fredriksen (2010).

The children also dislocated and disturbed the idea of a given cultural understanding (Bahrum, et al., 2017; Sturken & Cartwright, 2018) of how to interact with Vincent van Gogh's sunflowers or what an exhibition could show and mean.

Thinking with visual arts and being inspired

In contrast to the atelierista's open approach to following the children's interests, initiatives and interactions with visual arts and artistic processes in the events presented above, there was a clear yet underlying intention with the introduction of Elin Wikström's performance piece of her bed in a store. The introduction aimed to scaffold and challenge the children's experiences of what a piece of visual and performance arts could be (e.g. Terreni et al., 2021; Vecchi, 2010). It was also a way of inspiring the children to think and discuss questions about public- and semi-public spaces. In this way, the analytical eye (Karlsson Häikiö, 2018) was awakened and a transformative experience was activated to encourage the children's thinking by using artistic expressions as voices. These voices concerned an everyday place (the store) and an extraordinary action (sleeping in a store) in that place and stimulated the children's discussions about limitations, everyone's democratic rights and democratic responsibilities in society at large.

The conversation also touched on cultural and social issues, some of the challenges connected with visual arts (Bendroth Karlsson, 2017; Cartwright & Sturken, 2018; Waterhouse, 2017). In this event, the children became producers of thoughts rather than producers of visual arts. Their questions about visual arts and artists' works contributed to them partaking in society, engaging in imagining what grandma 'would think' and, at a more general level, their 'ability to recognize and accept' multiple perspectives (Eisner, 1999, p. 148).

Concluding remarks

By presenting the narrated examples and the findings in this article, the intention has been to show the kind of activities that can be done with visual arts objects and children of different ages in a preschool atelier and what this can afford children and educators in their everyday education, apart from the actual interaction with visual arts. The findings suggest that: (1) children's interactions with visual arts can scaffold dialogues about the content and intention of artwork and incorporate the children's views and ideas in other areas, (2) when children engage with visual arts and artistic processes they become producers of artistic expressions that make their aesthetic and cultural voices heard, thus making them participants in a cultural and social context (Sturken & Cartwright, 2018), (3) exploring visual arts and artistic processes in a museum or an atelier can stimulate children's 'imaginative' thinking and 'question making' (Bell, 2011, p. 42), which can then be connected to other subjects and curriculum areas in the preschool and (4) working with visual arts in a preschool atelier can scaffold knowledge about cultural signs,

materials and artefacts (digital and non-digital) and help children to develop knowledge and ideas about visual arts (Lindström, 2012). Such an educational practice can afford creativity, imagination, joy, laughter, play and unforeseen events.

Finally, in the light of the research questions and the above discussion, the findings suggest that children can develop analytical eyes 'in collaboration with more capable peers' (Vygotsky, 1978, p. 86) by engaging with visual arts in the atelier. The capacity of the analytical eye (Karlsson Häikiö, 2018) is important in preschool education because both the children and the adults in the preschool inhabit a world that is full of pictures and different kinds of visual material (Sturken & Cartwright, 2018). Encounters with different types of visual arts also allow children to interact with different artistic objects and lead to discussions about how interactions with visual arts can enrich the everyday practices of preschool education.

References

- Bahrum, S., Wahid, N., & Ibrahim, N. (2017). Integration of STEM Education in Malaysia and Why to STEM. *International Journal of Academic Research in Business and Social Sciences* 7(6): 645–654.
- Bell, D. (2011). Seven ways to talk about art: One conversation and seven questions for talking about art in early childhood education. *International Journal of Education Through Art* 7(1): 41–54.
- Bendroth Karlsson, M. (2017). *Barns möte med konst [Children's encounter with art]*. Lund: Studentlitteratur
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology* 3(2):77–101.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education*. Abingdon: Routledge.
- Dahlberg, G., & Moss, P. (2005). *Ethics and politics in early childhood education. Contesting early childhood*. London: RoutledgeFalmer.
- Dewey, J. (2005). *Art as experience*. New York: Penguin books.
- Eisner, E.W. (1999). Does Experience in the Arts Boost Academic Achievement? *The Clearing House* 72(3): 143–149.
- Fredriksen, B.C. (2010). Meaning making, democratic participation and art in early childhood education: Can inspiring objects structure dynamic curricula? *International Journal of Education Through Art* 6(3): 381–395. https://doi.org/10.1386/eta.6.3.381_1
- Fredriksen, B.C. (2011). *Negotiating grasp: embodied experience with three-dimensional materials and the negotiation of meaning in early childhood education*. Oslo School of Architecture and Design: Oslo.
- Hunter-Doniger, T., & Sydow, L. (2016). A Journey from STEM to STEAM: A Middle School Case Study. *The Clearing House* 89(4–5):159–166.
- Karlsson Häikiö, T. (2018). The atelier as a potential space for transformative learning processes. In T. Karlsson Häikiö & K.G. Eriksson (Eds.), *Art-Based Education: An Ethics and Politics of Relations* Gothenburg: HDK - Academy of Design and Crafts, University of Gothenburg: Gothenburg.

Lindström, L. (2012). Aesthetic Learning About, In, With and Through the Arts: A Curriculum Study. *International Journal of Art & Design Education*, 31(2), 166–179. <https://doi.org/10.1111/j.1476-8070.2012.01737.x>

Magnusson, L. (2021) Digital technology and the subjects of literacy and mathematics in the preschool atelier. *Contemporary Issues in Early Childhood*.
<https://doi.org/10.1177/1463949120983485>

Olsson, L. M. (2009). Movement and experimentation in young children's learning: Deleuze and Guattari in early childhood education. *Contesting Early Childhood*. London: Routledge.

Savva, A., & Trimis, E. (2005) Responses of Young Children to Contemporary Art Exhibits: The Role of Artistic Experiences. *International Journal of Education & the Arts* 6(13):1–23.

Selander, S. (2017). *Didaktiken efter Vygotsky: design för lärande [Didactics after Vygotsky: design for learning]*. Stockholm: Liber

Sturken, M., & Cartwright, L. (2018). *Practices of looking: an introduction to visual culture*. New York: Oxford University Press.

Terreni, L., Loveridge, J., Denee, R., & Zhou, J. (2021). Awarua and the dragon: storytelling as a stimulus for early childhood teaching and learning in two cultural contexts. *International Journal of Early Years Education*, 1–16. <https://doi.org/10.1080/09669760.2021.1894100>

Vecchi, V. (2010). *Art and creativity in Reggio Emilia: exploring the role and potential of ateliers in early childhood education*. London: Routledge.

Vecchi, V., & Giudici, C. (2004). *Children, art, artists: the expressive languages of children, the artistic language of Alberto Burri*. Reggio Emilia: Reggio Children.

Vygotsky, L.S. (1978). *Mind in society: the development of higher psychological processes*. Cambridge, Mass.: Harvard U.P.

Waterhouse, A.H.L. (2017). *Med kunst i barnehagen [With art in kindergarten]*. Bergen: Fagbokforlaget.