Interacting with materials
Children learning in Ateliers in School

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Abstract
This thesis focuses on the choices the teachers made concerning their role and their chosen materials in the arts education project ateliers in school and its influence on the learning effects of arts education. It is built on the social-constructive view of learning as a process between teachers, students and the materials (Lenz Taguchi et al, 2010; Frederiksen, 2011) and the theory of Harland et all (2000) which categorizes the learning effects of arts education. Inspired by these views the following research question was proposed: How do the role of the teacher and the chosen materials influence the learning effects of the arts education project ateliers in school?

The literature explores the theories of social-constructivism and experience while focusing on early childhood arts education and, specifically, the Reggio Emilia approach. The role of materials in the learning process is discussed and these are declared as essential for children’s learning. Lastly, the theory of learning as a process between teachers, students and materials is explored and the learning effects of the arts will be discussed.

Throughout the analysis several patterns concerning the aims of the atelier, the role of the teacher and the choice in materials for both the ateliers were discovered. Each pattern had its own effect on the atelier and corresponded to the discussed theories. Through several observed examples in both the ateliers it became clear that the learning effects were influenced by the different patterns that were discovered. Several learning effects, which corresponded to the theory of Harland et all (2000), were observed in the atelier of Punt 5. The most visible were enjoyment, gaining knowledge about the fine arts and the development of technical skills, experimentation and associating with their own experiences. In the case of the atelier of the Wilgenstam this were joy, experimentation, associating with their own experiences and collaborations. Consequently, the last three learning effects were the result of several patterns of the role of the teacher and choice in materials that were influenced by the role of the teacher, the choice of materials and the experiences of the children as theorized by Frederiksen (2011; 2012).

Keywords: learning process; arts education; early childhood education; early childhood arts education; Reggio Emilia; The material turn; micro-discoveries; materials; learning effects.
Foreword

This thesis would not exist without the help of several people. Kenniscentrum Cultuureducatie Rotterdam, basisschool de Wilgenstam and basisschool de Valentijnsschool: thank you for allowing me to observe the two ateliers. I am grateful for every person who donated their time to be interviewed, and thus-,, contributed to my research. Marion Rutten and Anton Klein, not only welcomed me in their lessons, but always took the time to answer all my questions. Thank you for sharing your insights, motivations and practices, it was really inspiring. A big shout out to my friends and family who were always ready to listen to my doubts, problems and other rants. Thanks for all your support. Susie, Lucas, Sabine and Marianne, all your help was very appreciated and needed. Lastly, my supervisor Jaco van den Dool, your support and wise words helped me immensely through the process of researching and writing this thesis.
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1. Introduction

In an art lesson a three year old girl paints on an easel. In her hands she holds a brush and a palette of different colours. When the girl notices she is running out of one of her colours on her palette, she goes to the art teacher. The art teacher asks her what she wants. The girl points to her palette, indicating that she wants more paint. The art teacher, already on her knees so she is on eye level with the child, asks her what colour she would like to paint with. The girl points to a bottle of paint, the purple bottle. The teacher asks if she knows the name of the colour, the girl shakes her head signalling no. “This is the colour purple” says the art teacher. “Purple” repeats the girl. The teacher adds the purple paint on the palette of the child and the girl walks back to her easel. She starts painting with the colour purple. After a while she goes back to the art teacher for more paint. She says “purple” and points her brush to the purple bottle of paint. She beams at the art teacher: the girl just learned a new word (observation, G).

In this short fragment of an art lesson a young child learned a new word. Her learning was influenced by different factors: her teacher, the experiences of the child and the materials that were provided by the teacher. Consequently, the result was that the child learned a new word which can be categorized as a learning effect, according to the theory of Harland et al (2000). This master thesis will focus on the impact of learning effects through the choice of the role of the teacher and the materials of learning through the exploration of a case-study. Through observations and interviews of an arts education project called Ateliers in School, which was founded by Kenniscentrum Cultuureducatie Rotterdam, the social-constructive view of learning as proposed by Lenz-Taguchi, Moss and Dahlberg (2010) and Frederiken (2011;2012) will be explored. In the research two ateliers both focused on the fine arts, are included. The aim of the Ateliers in School is to enhance the personal development and cognitive skills of children through the arts while creating connections between other subjects in education (Kenniscentrum Cultuureducatie Rotterdam, 2012). Consequently, the following research question is be the main focus of this research:

How do the role of the teacher and the chosen materials influence the learning effects of the arts education project ateliers in school?
This thesis explores the view of learning as a process between teachers, children and the materials, as proposed by Lenz-Taguchi, Moss and Dahlberg (2010) and will focus on how the choices of the teacher concerning their role and the materials influence the learning effects of the ateliers in school. The learning effects are defined as “[...] the outcomes of art lessons that pupils and teachers have identified as being associated with any effect on themselves” (Harland et al., 2000, 17). These theories will be further discussed in the theoretical framework. First, an overview of social-constructivism, arts education, early childhood arts education and the Reggio Emilia approach is created. Consequently, the three elements of the learning process, as proposed by Lenz-Taguchi, et all (2010), will be discussed separately before delving deeper into the learning process. The theoretical framework ends with the categorization of learning effects by the theory of Harland et all (2000). Secondly, in the methodology section the chosen method and the process of the research are discussed. Thirdly, the analysis and results discuss the observed patterns and its effect on the experiences of the children of both the ateliers. Each atelier will be discussed separately. The analysis will be structured through the following questions:

- What were the aims of ateliers in school?
- What was the role of the teacher and why?
- What material was used and why?
- What was the relation between the role of the teacher, material and children’s experience?
- Which learning effects were observed?

Consequently, based on the conclusions of these questions the research question will be answered.
Theoretical Framework

The theoretical framework consists of several chapters focusing on the relevant theories for this thesis. The first chapter focuses on creating an overview of the theory of constructivism and-social constructivism and explores the relationship between education and the concept of experience. Consequently, several important educational reformers, who influenced many educational and developmental theories, will be shortly introduced. The second chapter focuses on the different approaches within arts education and the role if the teacher within these approaches. After this short overview, early childhood arts education and the Reggio Emilia approach will be explored in the third chapter. Lastly, in the fourth chapter the main view of the learning process will be explored and the learning effects of the arts.

2. Educational theories

2.1. Constructivism and social-constructivism

This thesis focuses on the idea that children are active learners and participate in their own learning process. A theory that advocates this view is constructivism. Constructivism rejects the idea of scientific truths that are just waiting to be discovered. There is no absolute truth or knowledge, this can be mentally constructed in different ways. It is believed that knowledge is not imposed from outside, but rather formed inside people. Knowledge is subjective and personal; people produce knowledge based on their beliefs and experiences in situations. Therefore, learning is an active process (Schunk, 2008).

The Russian Lev Vygotsky (1896-1934) build further upon the principles of constructivism and added a social-cultural layer. Vygostky’s theory emphasized the interaction of social, cultural-historical and individual factors as the key for human development. Knowledge is a human product; it is socially and culturally constructed (Kim, 2001). Children are not viewed as blank slates, but as active learners. They bring their own beliefs and understandings to social interactions and construct meanings by integrating those understandings with their experiences in that context. Context is important to learning: children interact with their teachers, peers and their environment and this transforms their thinking. Hence, the environment is an important pillar in his theory; it is supposed to create rich experiences which encourages children to learn. Learning is viewed as a social process and it occurs when children interact in social activities (Kim, 2001).
Therefore, Vygotsky emphasized social interactions; he believed that knowledge is co-constructed between two or more people (Schunk, 2008). He argued for peer-to-peer- and cooperative learning. Lastly, since children are seen as active contributors to their own learning the teacher should emphasize this notion; instead of just passing down information to the children, the teacher should create a rich environment. The children should become actively involved with the content of the lesson through the manipulation of materials and social interaction (Schunk, 2008).

2.2. Education and Experience

The intertwining of education and experience have been verbalized and emphasized since the age of Aristotle. He wrote: “For the things we have to learn before we can do them, we learn by doing them” (Aristotle as cited in Murray, 2014). The concept of experience was further developed by John Dewey (1859-1952) an American philosopher, psychologist and educational reformer. Experience played an important role in both his philosophy of education and art. The concept of experience can be understood as “the result, the sign and the reward of that interaction of organism and environment” (Dewey, 1934, p. 22).

Experience is an unity of emotional, practical and intellectual dimensions; learning emerges from experience. Dewey believes that knowledge is constructed through ascribing qualities to events on a physical level. He makes a distinction between active and passive learning. Passive learning focuses on knowledge creation through the transmission of pre-existing, fixed ideas while active learning relies on creating knowledge through the transformation of experience (Dewey, 1934).

The constructivist educational philosopher Jean Piaget (1896-1980) further develops the theory of Dewey, in what he called, the theory of knowing. Knowledge creation explained as an interaction between ideas and experiences (Ackerman, 2004). Dewey’s and Piaget’s theory is the foundation of the experiential learning theory (ELT) formulated by David Kolb in the 1980’s. In this theory knowledge is gained through personal and environmental experiences which are constantly being updated. According to Kolb experiential learning is a spiral which moves through different stages: experience, reflection, conceptualization, action and then back to experience. This theory focuses on the idea that learning is a holistic process in which thinking, feeling, perceiving and behaving are required.
Learning is a result from transactions between the learner and the environment (Kolb and Kolb, 2005).

Experience is often linked to the arts and arts education. Eckhoff (2008) argues that the experience of a child is very important for its creative imagination. Experience is part of a dynamic process that is connected to imagination, creativity and cognition in which it can lead to many directions (Eckhoff, 2008). According to Eglinton (2007), experience leads to discovery, which leads to further investigation and new experiences. Efland (2002) viewed both the individual experiences and social interactions are important to learning process and, especially, necessary in the field of the arts.

Often, experience and learning a language has been connected to each other (Høigård 2006, in Frederiksen, 2011). Senses and experience are believed to be important for young children in order to learn new concepts and words. When a child learns a new word, a connection between an experience and a concept is created. The difference between a word and a concept is that a word is a meaningless shell. A concept is about the meaning behind the word (Høigård 2006, in Frederiksen, 2011). For a child, learning a new word is all about emotions and associations they connect to that concept. They experience the physical, emotional and cultural context that surrounds them. The basis of learning a new word happens with all the senses of a child. Thus, experience is a key word in this idea of learning a language (Høigård in Frederiksen, 2011). Connecting meaning to words is a dynamic process (Vygostky, in Frederiksen, 2011). When a word is experienced, a so-called first-hand experience, it will be better remembered by the children then explaining the meaning of a word to children (a second-hand experience) (Høigård in Frederiksen, 2011).
3. Overview of arts education

3.1 Overarching approaches to arts education

Arts education has been widely influenced by educational-, learning - and developmental theories. However, three overarching approaches to arts education in western countries can be identified: progressivism, discipline-based and contemporary (Efland, 1990).

The progressive approach to arts education links artistic expression to the natural development of the child (Twigg and Garvis, 2010). It was considered vital for children to have the ability to express themselves and create something. Creative self-expression evolved into a method where children were encouraged to make their own art to express themselves without interference of adults in a structured setting. Dewey considered art as an experience of daily life in which the self and the society were integrated. The arts could lead, in Dewey’s eyes, to societal improvement (Goldblatt, 2006). After the Second World War more emphasis was put on arts education and creative self-expression, mostly due to Viktor Lowenfeld (1950). Arts education was encouraged under the vision of personal growth; the arts was were considered a developmental ability. Lowenfeld (1950) stated that the arts was a tool that could lead to developing creative skills (Tippets Christiansen, 2007). Lowenfelds’ approach has been identified as laissez-faire, as it focuses on creative expression through natural unfolding behaviour (Boone, 2007). This approach to art education is still practiced today (Boone 2007; Twigg and Garvis, 2010).

A second approach to arts education is the discipline-based art approach. During the beginning of the 1960’s a new format of arts education was being presented. Instead of teaching art as a creative form of self-expression, art education was now promoted as a discipline. The focus moved from child-centred to subject-centred (Efland, 1990). These ideas would not only lead to a new impulse in arts education, but also strengthen the case of arts education as a serious subject (Boone, 2007; Tippets Christiansen, 2007). In the 1980’s the content-based approach to arts education became more popular and led to the introduction of the Discipline-Based Arts Education (DBAE). Where the emphasis in the progressivism approach lied on art activities and the creation of art, the emphasis of DBAE shifted to a balanced curriculum of arts education where four disciplines are incorporated. DBAE become the dominant approach for the next 20 years (Boone, 2007; Twigg and Garvis, 2010).
The last approach to arts education are contemporary models. During the 1980’s postmodernism emerged and promoted the arts as a form social reconstruction. Art was viewed as a way to transform society by encouraging diversity into the curriculum. Art educators began to build the concepts of feminism, multiculturalism and popular culture into the subject of arts education (Efland, 1990). Art became linked to human and cultural experiences and new approaches to arts education arised (Twigg and Garvis, 2010). One of the most prominent approaches in contemporary art education is the Reggio Emilia approach (Cadwell, 1997). This approach focuses solely on young children and will be further explained the following chapter.

3.2. History of teacher input in early childhood arts education

The role of the teacher in early childhood arts education has differed throughout the history of arts education. This role has been influenced by different learning and developmental theories and by the three movements within arts education. Different perspectives to artistic development of children can be identified.

At the end of the nineteenth century the artistic development of young children gained more attention. Before that period, children were seen as untrained and unskilled miniature adults. Their primary task was to learn good habits and proper drawing skills. Therefore, the teaching approaches were mostly based on the nature of art than the needs of the children (Kindler, 1995). This changed when the child-centred approach gained more attention. This approach proposes the idea that every child was born with a creative impulse and input from the outside world could be damaging. It was believed that “method poises art” and teachers should “only take of the lid” (Efland, 1976, p. 71). Gardner deemed “[...] active intervention unnecessary” during the preschool years of children (1982, p. 89). This noninterventionist philosophy believed that young children’s art would unfold naturally and, therefore, artistic development could take care of itself. The role of the teacher was limited to facilitating materials for the children to work with. This idea is still present in arts education, mostly in early childhood art education (Kindler, 1995).

However, several year later more emphasis was being put on active involvement by teachers in arts education for young children, mostly due to Vygostky’s (1978) theory about the zone of proximal development. He argued that a laissez-faire approach to education would encourage a child to stay in one place and would not promote growth. Burton argued
that teachers play an important role in the artistic development of young children. He specified that teachers should be actively involved in the learning process of the children. The exchange between teacher and a child could mean a more enriching artistic art experience and positively influences the learning process of the child. However, he specifies that the teacher should not tell the child what to do or provide specific directions. The role of the teacher focuses on encouraging the child to make conscious decisions about their art (Burton, 1980).
4. Early childhood (arts) education

4.1. Early Childhood arts education

Arts education within early childhood education became more important the last 20 years, mostly due to the Reggio Emilia approach which gained attention in the 1990’s. Research showed that young children were capable of creating, perceiving and discussing the visual arts (Colbert, 1984). Manifold researchers emphasized the positive benefits for arts education in early childhood. According to Eisner (1994) art is a representation through which children’s ideas and personal beliefs are publicly shared. This view of art was already earlier mentioned by Harris (1963) who called children’s art a form of communication in which their feelings and ideas are conveyed to each other. Therefore, children who participate in art activities are provided opportunities to learn to express their ideas, interests and meaningful live experiences (Korn-Bursztyn, 2002). Consequently, art is crucial in making sense of everyday life (Walsh, 1993). Young children can employ art to communicate their understandings and interpretations of the world, even before they learn to share their experiences in words (Danko-McGee & Slutsky, 2003). Other research shows that art education for young children can enhance the acquisition of an art vocabulary, increase perceptual awareness and strengthen descriptive powers of language. Colbert (1995) argued for a relationship between drawing and language development in young children. Overall, manifold researchers conclude that the arts are an important dimension to children’s cognition and thinking process (Terrini, 2010).

Important theories of the learning of children are incorporated in early childhood arts educations, like the theory of multi-sensory learning (Dewey, 1934), play-based learning (Piaget, 1969) and embodied learning (Dewey, 1934).

Multi-sensory learning is a technique where children are stimulated to learn through multiple senses (Boone, 2007). Experimentation, discovery and investigation are key elements in this technique, which is usually present in hands-on learning activities (Boone, 2007). A sensory, rich learning environment is an essential part of stimulating the children: when objects relate to young children’s experiences, ideas and imagination they are able to make sense of them. Younger children are predominantly visual thinkers, so they have the tendency to learn better through concrete examples (Gorjian et al., 2012). Multi-sensorary learning techniques are employed to create a richer learning environment and are more motivating for the children. It is believed that they will easier learn and remember when
multiple senses are involved (Gorjian et al, 2012; Rettig and Rettig, 1999). Multi-sensory learning can be divided into different techniques, each involving one sense: visual-, auditory-, tactile- and kinesthetic techniques (Gorjian et al, 2012). Visualisation is a common strategy of multi-sensory learning. It is believed that a visual technique helps a child easier understand, create an eye for details and makes it easier to associate with their own experiences (Gorjian et al, 2012). Auditory techniques focus on sounds and stimulates verbal reasoning. Some Examples are books on tapes, pear assisted reading, singing, rhymes and the use of music and instruments. Thirdly, tactile techniques involve the sense of touch and include objects and materials. Some examples are sculpting materials, finger paint, textured objects and puzzles. Tactile techniques are believed to help develop fine motor skills (Gorjian et al, 2012). The last multi-sensory technique are kinaesthetic: these methods involve body movements which focuses on fine and gross motor movement. Examples of tactile methods are rope jumping, clapping or stomping. All these different techniques can also be combined: for example, dancing and singing to a song in order to learn the English language (Gorjian et al, 2012). Kervalage (1995) argues that sensory involvement with objects and artistic experiences enhances the ability of children to “produce, perceive and respond to art” (p. 60). Several researchers believe that art experiences can create powerful memories (Rettig and Rettig, 1999). Multi-sensory learning provides many opportunities to be involved in arts education (Boone, 2007).

Play-based learning is taught to stimulate learning and increase the achievement of the children. Many findings in research show that play-based learning is one of the most effective methods in primary and elementary grades (Jachyro & Fusco, 2014; Thomas et al, 2012). However, learning activities which are offered in the context of play should be “[...] concrete, real and meaningful to the lives and needs of children” (Colbert, 1995, p.35). Play is defined as voluntary, intrinsically motivating, active (and often physical) engagement and has a make-believe quality (Rieber in Jachyro & Fusco, 2014). Play-based learning is a technique that stimulates the curiosity, communication and the problem-solving skills of the children. Consequently, it supports the imagination and creativity. Through play, children acquire sensory experience of their environment and can make sense of the world. It is an activity in which they can explore and discover the possibilities of experience (Eisner, 1994). Froebel states that art and play share the same characteristics (Tarr, 1989). The focus of early childhood arts education lies primarily on the exploration of various materials, such as
clay, paint and scrap materials. Young children develop their creativity and new ideas through play (Saracho, 2014). It is believed that there is a link between play-based learning of young children and creativity in their adult life (Saracho, 2014).

In western philosophy there has been a divide between the body and the mind in education. Manifold researchers, including Dewey (1934), criticized this division argued for the inclusion of the body in the classroom. Bresler wrote a book about this division and argues that the body “[...] constitutes a mode of knowing” (2004, p. 9). She states that there is a connection between embodiment, knowing, learning and teaching. The body is essential for human beings: she views the body as a medium for making sense of the world (Bresler, 2004). The use of the body in education has been referred to as embodied learning. This is a holistic process where sensing, perceiving, moving and thinking are all connected. It is an active and dynamic process which involves connecting with other human beings, materials and imagination. It is not about transferring knowledge, but creating knowledge. This does not just takes place in the brain, but in the entire body. Examples of embodied learning are touching, smelling, physical exploration, picking objects of the ground or turning objects around. It is believed that movement activates multiple perceptual channels (Saracho, 2012). Bresler (2004) argues that embodied learning is a good fit for arts education. The arts is one of the few domains in education where multiple languages, both verbal and non-verbal, are involved. These non-verbal ways of learning can help children express things which might be harder for them to do in words (Fraser, Price & Henderson, 2008). Consequently, students “[...] explore, refine and communicate ideas as they connect thinking, imagination, sense and feelings to create works and response to the works of others” (Ministry of education, 2007, p. 17). The body, and thus, embodied learning is an essential part of this view. This is especially true for younger children whose verbal communication skills are not yet fully developed. It is believed that young children can communicate better through their bodies then through verbal language. Movement can help children develop their creativity and sense of adventure (Saracho, 2012).

4.2. The Reggio Emilia approach

The Reggio Emilia approach is a contemporary approach to arts education which became popular during the 1990’s. The Italian town Reggio Emilia developed a special early childhood education approach for children of three months till the age of six years old. In the
1950’s early childhood education was emphasized, fuelled by the progressive ideas of Dewey. The founders of the Reggio Emilia approach believed that “[...] education should liberate childhood energy and capacities and promote the harmonious development of the whole child in communicative, social and affective domains” (Cadwell, 2003, 3). Currently, the Reggio Emilia approach has been adapted to several countries such as the United States of America and the Netherlands. It is important to note that the Reggio Emilia is not a clear cut technique that can be followed through different steps, but rather a complex approach which grew from questions of the nature of the child and of education. Therefore, the Reggio Emilia approach is based on four key elements (Cadwell, 1997).

Firstly, the child is viewed as a protagonist in their own learning process. In the Reggio Emilia approach children are viewed as interested, curious, strong and capable in constructing their own learning. It is believed that the child has rights and not just needs and therefore should be taking seriously. The child has a desire to discover, learn and make sense of the world (Cadwell, 1997). Children are viewed as active constructors of knowledge and not as targets of instruction. Loris Malaguzzi, one of the founders of the Reggio Emilia approach, described the children as “[...] authors of their own learning” (in Hewett 2001, p. 96). Not only are the children viewed as protagonists, but also as natural researchers. Children question what they see and hypothesize solutions. In the Reggio Emilia approach the role as researcher is enhanced by all the projects and in-depth studies that are being undertaken. When the children are engaged in one specific topic they are able to explore, observe and discuss that specific topic. Thus, The investigative role of child is very important (Hewett, 2001).

Secondly, communication is another essential element of the Reggio Emilia approach. The aim of the approach is to promote the education of children through the development of all their languages. Teaching is mostly focused on the spoken language of words, but within this approach they believe that children expect living words, symbols and representations of their world. In other words, there should be a focus on both verbal and non-verbal language. This idea is dubbed as the ‘hundred languages of children’ and can include expressive, communicative, symbolic, cognitive, ethical, metaphorical, logical, imaginative and relational languages. All these languages are equally important and should be all fully developed. The more languages are recognized, the easier it is for teachers to help the children learn (Malaguzzi, 1996). In practice, there is an emphasis on the visual arts
and creativity. Art is viewed as a way for the children to communicate and thus, they focus on drawing, painting and building. Each school that follows the Reggio Emilia approach has an atelier in school with an art teacher who is trained in the visual arts and works with the children and other teachers. The idea of the ateliers is to engage the children in a non-verbal language and make their thinking visible (Cadwell, 2003). An essential element to the ateliers are the materials that the children are provided with. Different materials are available in the atelier: this varies from paint, clay and paper to more natural materials such as leaves and stones. The materials are offered in different ways, sometimes with specific suggestions other times without any instruction. These range of different materials are very important, because each material gives a child the opportunity to express themselves. Consequently, the materials have the power to engage the children’s mind, body and emotions (Cadwell, 1997). The materials stimulate all the senses of the children, so not just hearing and speaking, but also feeling. This is considered as an essential element of the ateliers. The experience of interacting with these materials is important in the learning process of the children (Malaguzzi, 1996).

Thirdly, in the Reggio Emilia approach relationships are emphasized. They believe that children construct meaning when they are interacting with peers, their parents, teachers and their environment. Therefore, the environment is viewed as the third teacher in this approach. The environment should be encouraging encounters, communication and relationships. Each corner of the space should be used and have the potential to engage the children (Cadwell, 1997). This idea of constructing knowledge while interacting with peers is encouraged during the projects, which mostly results in collaborating in small groups but also encouraging dialogue, negotiation or conflicts (Hewett, 2001). Consequently, this element is visible in the interaction with materials. Children use these materials to make sense of the world and to build rich and complex relationships. (Cadwell, 1997).

Fourthly, not only is there a lot of emphasis on the children, but also on the role of the teacher. In the Reggio Emilia approach the teacher focuses on the child and starts teaching from the child as a starting point. The teacher is a partner, nurturer and a guide (Cadwell, 1997). The teachers should facilitate the learning of the children through asking questions and provide situations and contexts where the children are able to learn. Creating a dialogue through asking open-ended questions should stimulate the thinking of the children. The teacher should not give the correct information or fish for the right answers,
but explore the children’s idea. Carlina Rinaldi, a pedagogical director of the preschools in Reggio Emilia, states “[...] It is not the answers that are important, it is the process- that you and he search together” (Rinaldi in Cadwell, 1997, p. 63). Therefore, it is important for the teacher to listen to the children.

Other key element of the Reggio Emilia approach are the involvement of the parents and documentation. The parents are considered partners and they play an active part in the learning experience of the children. This involvement differs from skills that the children learn at their home or exchanging ideas with the teachers. Documentation also plays an important part in the Reggio Emilia approach. The aim of the school is to document the entire learning process of the children through observations, photographs, transcriptions of dialogue with the children. This creates awareness on the children’s experiences, helps the teachers to understand the children better and evaluate their own work (Cadwell, 2003).
5. The learning process

As stated earlier, the social-constructivist view emphasized learning as a process between teachers and children. Recently, manifold researches argued for an added dimension to this notion: the materials. They believe that the learning process is the sum of both the teacher and the children’s beliefs, understanding, feelings, interests, imagination and the use of materials in the lesson (Lenz Taguchi et al, 2010; Frederiksen, 2011; Frederiksen, 2012). These three components, children, teacher and materials, exist in a close relationship. This relationship can be described as a triangle: the three elements all play an equally important role and together they create a triangle (table. 5.1.). In the last chapter the component of the children was explained. This chapter focuses on the two other elements: the role of the teacher and the materials. Firstly, different teaching methods and attitudes in arts education are described, followed by an explanation of the popularization of materials in the learning process. Lastly, this view of the learning process will be explained further.

5.1. The learning process can be described as a triangle.

5.1. The role of the teacher in visual arts education

The role of the teacher within arts education is largely depended on the aim of the lessons, the belief of the nature of arts education and its place in the curriculum. There are different attitudes towards teaching arts education that influences the role of the teacher. Bresler identified three orientations towards (visual) arts education: the rote teacher-centred orientation, the student-centred orientation and the higher-order cognition orientation (1994).
The rote teacher-centred orientation is a mostly imitative approach from other subjects in the curriculum. It mimics the structure, goals and teaching style of regular subjects. The art activities in this orientation are the same as in other subjects; there is a focus on memorization, rules and right answers. Often, the aims of the art activities are developing fine motor skills, neatness and following the directions of the teacher. The art lessons are not stimulating the creativity of the children or encourages them to experiment with the materials. Most of the learning activities are on the lower level of cognition. The children, usually, create artworks that follows the example of the teacher. Therefore, most of the artworks of the children are generally the same (Bresler, 1994). Teaching activities in this form of arts education are giving instructions and informal evaluations. This follows mostly the method of direct teaching. Most of the lesson is completely planned out and the children should imitate the teacher; the teacher dictates the process. Research shows that teachers in this orientation regulate the art activities of the children and thus shape their expression by controlling the access to the materials (Bresler, 1993).

The second orientation, the student-centred approach, is quite different than the first orientation. The child is the starting point of the art lessons: the child can make its own decisions about its artwork, the materials and which techniques he or she wants to employ. The children receive open-ended assignments (Bresler, 1993). The role of the teacher is completely different than in the first orientation. The teacher provides no instruction, only technical advice if necessary. The role of the teacher is limited to providing materials and encouraging the children to follow their ideas. Consequently, creating a positive environment where the children can express themselves and not be criticized is part of their role. Therefore, evaluations of the artworks of the children are mostly positive and supportive (Bresler, 1994). This orientation of arts education follows the laissez-faire approach which was discussed earlier.

The last approach is the higher-order cognitive orientation. Most of the art lessons in this orientations consist of hands-on activities and discussions on the ideas of the children. In this context, art is seen as a complex activity where the knowledge of the teacher is required (Bresler, 1994). The teacher is more present in the classroom compared to the student-centred orientation. The role of the teacher can be described as a guide. Teaching focuses on

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1 Direct teaching, or also called direct instruction, is the use of straightforward, explicit teaching techniques, usually to teach a specific skill.
the knowledge of art (for example, colours, perspective) and techniques. There is more emphasis on the aesthetic quality and children are taught how to look and observe when creating their artwork. In other words, the process of an artist is highlighted. Teaching consists mostly of scaffolding and the lesson is designed to promote discoveries (Bresler, 1994).

5.2 The Material Turn

During the early 20th century a paradigm shift was visible: the linguistic turn became more prominent and was ultimately popularized by Richard Rorty. The linguistic turn in philosophy and social theory argues that language is an important agent in the meaning-making and construction of discourse. Reality is constructed through the meaning of language. In other words: language constitutes our daily practices and realities (Rorty, 1967). Since the linguistic turn there has been a tendency to over-focus on linguistic forms of learning: embodied and sensory learning were deemed less important than linguistic forms (Efland, 2004). Yet, a new paradigm shift is visible that builds upon the linguistic turn: the material turn. In this new turn material is included as an active agent in the construction of discourse and reality. Physical matter becomes dynamic material and can interact with other materials in the process of transformation. There is an increased interest in the active role of the material world, material culture and material agency (Lenz-Taguchi et al., 2010).

The material turn has influenced several researches, such as Alan Prout and Karen Barad. Prout argues that the material turn could help overcome the divide between nature and culture that is still visible in education. Learning and children’s development are still viewed as a result of either biology and genetics or upbringing and social relations. Prout urges to overcome this divide to include not only language, but also the body and materials in the equation for a new view on education (Prout, 2005). Barad continues with this theory by arguing that the body and the use of materials in education previously have been rejected. She states that in the learning process everything is connected; constructing meaning happens with all the elements in a classroom. Barad argues that: “Existence is not a individual affair” and that “[...] both human individuals and non-human organisms and matter emerge through and as a part of entangled intra-relations” (Barad, 2007: ix). This view is based on the idea that there is no divide between human and non-human: we are at co-existence with the rest of the world. Therefore, there is no hierarchical relationship
between people and the world around us. We are continuously in a relationship of inter-dependence and interconnection with each other; whether they are human or non-human agents. In simpler words: Everything around us affects everything else and this is a continuous process (Lenz-Taguchi et all, 2010). Barad states that materials have a special role in this process and calls them performative agents, which means that materials can be understood as having an agency of their own (Barad, 2007).

Based on this view Lenz-Taguchi (et all. 2010) developed a new theory on education which they call an intra-active pedagogy. In short this is a “[...] process of collaborative invention and creativity between children and teachers” (Lenz-Taguchi et all, 2010: xiv). There is a special role for the material environment, such as artefacts, spaces and places, that we occupy and use in our daily practices. Inspired by Barad, Lenz-Taguchi (et all. 2010) argues that material objects play an important role in the learning process. Materials have the force and the power to transform our thinking and the way children make sense of the world. Materials are not just passive, but active agents. Therefore, they follows Barad’s concept of materials as performative agents. In this theory the focus lies not on the outcome or the subject, but on meaning making in the in-between: on the connections between the different agents that influence the learning process. (Lenz-Taguchi et all, 2010).

The central idea of learning in this pedagogy is, once again, based on a notion of Barad: she states that learning and knowing takes place in the interconnectedness in-between different matter making themselves intelligible to each other (Barad, 2007). More concrete, in a classroom this would mean that learning takes place in-between the children, students, teachers, chairs, books, pens and papers when they are writing, reading, talking while sitting on their desks or in circles. All of this can have an effect on the learning process of the children. They argue that learning events take as much place between our hands while handling materials as they do while thinking or trying to understand concepts. Therefore, material objects, spaces and places are an inevitable part of learning (Lenz-Taguchi et all, 2010; Barad, 2007). Lenz-Taguchi (et all.) believe education should provide philosophy and the practice of thinking; being reflective and inventive. Consequently, they want to achieve that children and teachers are stimulated to think differently and more from their lived and possible experiences (Lenz-Taguchi et all, 2010).

Concluding, in this pedagogy learning is viewed as a process of transformation and is constantly changing when it comes in contact with another agent, whether human or non-
human: both can affect the learning process of a child. Teachers should not be focused on just learning goals and outcomes, but on what might be possible, what emerges and what become. Consequently, they should focus on what role materials and the environment can play in the learning process; how material can be productive for what children say or do and how the material can alter their understanding of concepts (Lenz-Taguchi et all, 2010).

5.3. The role of materials in the learning process

The theory of the intra-active pedagogy echoes principles of the earlier discussed Reggio Emilia approach to (arts) education. The Reggio Emilia approach stated that the environment and the available materials play an important role in the learning process of children. The environment and its materials are referred as the third teacher (Malaguzzi, 1996). However, not only Barad (2007) Lenz-Taguchi (et all. 2010) and the Reggio Emilia approach focus on materials in the learning environment. Manifold researchers also ascribe an important role for materials in the learning process.

Eisner argues that the choices the teacher makes about materials in the classroom can provide possibilities for certain forms of learning to take place (2002). He claims that art materials with specific qualities have the capacity to provoke certain types of learning. However, the teacher cannot decide what can be learned (Eisner, 2002). Piaget (1969) argued for the role of materials in the learning process of children; he considered interactions with different materials essential for the learning of children. The right materials promotes discoveries by children. This view connects to the theories of play-based and multi-sensory learning.

Dewey (1916) promotes the use of pre-fabricated and natural materials in the classroom. These materials are perfect for exploring all the senses of children. When they have materials that surprises it stimulates their explorative play and positively influences their learning process. Experimenting is the driving force behind the curiosity of children (Dewey, 1916). Fabricated materials, such as Lego blocks, could prevent the development of the ability of children to create their own problems and, thus, think of their own possible solutions. Providing children with such materials could hamper the development of their problem-solving skills and getting emotionally engaged, motivated and proud (Frederiksen, 2011). It is the responsibility of the teacher to decide which material should be available in the classroom. Experiencing different materials provides the children the opportunity to
refine their aesthetic attention (Eisner, 2002). When children explore materials that cause resistance, or surprise them, it can create a connection between their past and new experiences (Dewey, 1934). Consequently, it will allow the child to think about their own solution which enhances the problem solving skills of the children (Eisner, 2002).

Dewey (1934) was one of the first to acknowledge the importance of materials in the learning process. He created the concept of body-mind in which he implied that there is an ongoing interaction between the body and the mind. Therefore, he stressed the importance of an embodied experience in education (Dewey, 1934). Howes (2005) expanded this concept in what he called: the body-mind-environment. He argued that the quality of the children’s environment influences their learning process. Shusterman (2008) builds further upon this view and states that we can only know the world through our bodies. This is especially true for young children who use their senses to explore their world. They are constantly exploring and interested in their environment and the materials that are in it. (Boone, 2007).

5.4. The learning process

As stated earlier, this thesis focuses on the social-constructive view that learning is a process between teachers and children. However, an extra element will be added to this notion: the materials; they play an important role in the learning process (Lenz Taguchi et al, 2010). Therefore, learning is influenced by the sum of both the teacher and the children’s beliefs, understanding, feelings, interests, imagination and the use of materials in the lesson (Frederiksen, 2012). In this view learning can be described as a triangle in which the teacher, the children and the chosen materials all have an equal role. Frederiksen (2011) explains: “It refers to a combination of social, individual and material influence on the process of developing understanding” (p. 24). In his view, creating knowledge, thus learning, is an active negotiation with both tangible materials and other people, such as teachers and students. This combination of social, individual and material factors influences the understanding of new concepts and thus, the process of learning (Frederiksen, 2011). However, it is important to note that in this philosophy of learning, it is impossible for the teacher to predict exactly what will happen in the lessons. This is especially the case if young children are involved (Frederiksen, 2012).
Eisner (2002) proposed this view of learning already when he explained the concept of micro-discoveries. “ [...] the moment when a new idea is born as a result of parallel processes of on the one side embodied physical negotiation with materials, and on the other of inner negotiation between past and present experiences” (p. In short, a micro-discovery is a moment of new understanding; an intrinsic form of creativity. A micro-discovery is a personal discovery; these are very small, but can mean a lot to a child (Eisner, 2002). Examples of these micro-discoveries are when a child figures out how to tie something together or how to mix colours: they are unique solutions or new meanings. Even though, these micro-discoveries are quite small, they are very important for children: they learned something on their own. When a child experiences a micro-discovery they can show this by smiling, jumping, laughing or other (non-)verbal expressions. If the discoveries are shared with others the child can receive recognition, awake curiosity or be praised; this can have an important effect on the child’s experience (Frederiksen, 2011).

In the Scandinavian countries a relatively new concept about learning in arts education has been introduced: the aesthetic learning process (Hohr & Pedersen, 2006; as stated in Frederiksen, 2011). The idea of this concept is to explore the understanding of the specific learning in the arts (Frederikson, 2011). Aesthetic activities are viewed as specific forms of learning. “Such processes are seen as activity of expressing personal experience through a medium, where the process of mediation stimulates diverse developments” (Lindström, 2009 in Frederiksen, 2011: p. 81). This concept follows the theory that the learning process consist of the interaction between materials, teachers and children (Lenz-Taguchi et al, 2010). “The children’s experimenting processes during physical activities with materials, and communication with teacher and peers, merged into one process. Such process of meaning making that takes place during children’s engagement with arts” (Frederiksen, 2011: p. 10-11). It is a process which transforms sensory and emotional experience in some kind of communication. The concept of the aesthetic learning process is based on the question how the artistic process of a child relates to cognition. It is supposed to combine the concept of cognition with experience and expression (Frederiksen, 2011).

5.5. The learning effects of the arts
In the theoretical framework of this thesis the focus was mostly on how children learn and not exactly on what they learn. In the field of arts education the learning results of arts
education is a contested subject. General consensus is that it is hard, if not impossible, to measure the precise results of arts education. However, many researchers tried to gather hard data concerning this subject, most notably the meta-analysis of Winner and Hetland (Winner and Hetland, 2000). Even though, several researchers tried to categorize some of the learning effects of arts education mainly through interviews with teachers and students. Therefore, the presented categories of learning effects in this chapter are being defined as “[...] the outcomes of art lessons that pupils and teachers have identified as being associated with any effect on themselves” (Harland et al, 2000, 17).

The categorization of learning effects of arts education started in Dutch research in 1985 by Haanstra & van Oijen who categorized the effects by intrinsic, professional and broad instrumental effects. However, any effects related to society, which is now a hot topic in arts education, were not included in that time (Van Hoorn & Haanstra, 2008). A more recent study by Prieckaerts (2006) focussed more on the societal effects of arts education by including categories like social inclusion and social cohesion (Van Hoorn & Haanstra, 2008). However, one of the most leading researches in categorizing learning effects in arts education has been done by Harland et all. Consequently, their categorization was the blueprint for multiple versions of the Monitor Cultuureducatie Voortgezet Onderwijs in order to explore the aims and effects in arts education in high school (van Hoorn & Haanstra, 2008).

The following typology of learning effects were described by the research by Harland et all (2000):

1. Forms of enjoyment and therapy
2. Art form knowledge and skills
3. Knowledge in the social and cultural domain
4. Creativity and thinking skills
5. Communication and expressive skills
6. Personal and social development
7. Transfer effects

1. The first effect relates to the one of the most commented and immediate effect of the arts: personal enjoyment, happiness fulfilment, increase of well-being, release of stress or is
a form of escapism, relaxation or any other thing related to this effect. This is often considered as an intrinsic effect.

2. The second effect relates to artistic development, technical skills, knowledge and understanding about the art form and its context, increased levels of appreciation.

3. The third category focuses on understanding of the different social and cultural contexts including things like broadening perspectives on cultural traditions and diversity, awareness of their surroundings, awareness of social and moral issues.

4. Fourthly, this category focuses on the impact of arts education on higher-order cognitive skills and competencies such as the development of problem-solving and thinking skills and the development of creativity, imagination, experiment and innovation.

5. The fifth learning effect concerns the development of interactive communication skills, language competency, increasing the active listening skills and to give them the skills to express themselves, their ideas about the world and their lives. The focus is on arts as a form of expression.

6. The sixth category focuses on outcomes of personal and social developments like gains in self-awareness, enhanced self-esteem, improved social skills, improved awareness of others and empathy.

7. Lastly, this category deals with the so-called transfer effects; meaning that outcomes of arts education are carried over to other areas or activities. This category focuses on three areas: transfer effects to other courses of the curriculum or enhancing of the academic performance, skills that were transferred to work and if it might entice to go quicker to do cultural activities.

It is important to note that this list is a broad overview of all kinds of effects affiliated to arts education. However, arts education is a broad subject involving music, drama, fine arts and so on. Some effects will be more easily acquired by one part then the other; for example, speech development would likely easier to develop in theatre then in the fine arts. Harland
et all (2000) offered seven broad typology of effects that could occur in arts education which he categorized into primary and secondary effects. The primary effects could be employed as reasons for legitimization in arts policy or could the easily measured if necessary. Harland deems all effects important, but gives priority to the primary effects (Harland, 2008).
6. Methodology

The main purpose of this research is to explore how the role of the teacher and the chosen materials influence the learning effects of the ateliers in school. As stated earlier, this thesis follows the theory of Lenz Taguchi et al (2010) according to whom learning is a process between children, teacher and materials. Consequently, the theory of Harland et all (2000) which categorized the learning effects of arts education is also being followed. A qualitative approach to this research was chosen. Pope and Mays (1995) states that qualitative research “[...] helps us to understand social phenomena in natural (rather than experimental) setting, giving due emphasis to meaning, experiences and views of the participants” (p. 42). In order to answer the research question the method of a case-study was chosen. A case-study is defined as “[...] a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence” (Robson, 2002 in Arthur et all, 2012). A positive aspect of this method is that in-depth information can be collected and a better understanding of a phenomenon could be gained. However, a case-study is a representation that is embedded in a context and should also being understood within such context. It is therefore hard to draw general conclusions from a case-study. However, a case-study could increase and add knowledge to this field of study (Arthur et all, 2012). The collecting of data took place in the form of observations and semi-structured interviews over the course of two months. A mixed method approach was chosen in order to enhance the validity of the collected data. Consequently, this is called triangulation (Gilbert, 2008). The aim of this research was not to draw general conclusions about learning in the field of arts education, but only about the specific subject of this case-study. The subject of the case-study was the arts education project, ateliers in school, from Kenniscentrum Cultuureducatie Rotterdam (KCR). Each atelier will be discussed separately, also in terms of observations and interviews.

6.1 Kenniscentrum Cultuureducatie Rotterdam

The beginnings of the ateliers are closely connected to the education policy of the city of Rotterdam called Beter Presteren introduced in 2011. This policy focussed on improving the learning achievements of children, more specifically the language and mathematical skills of children. Moreover, cultural-, social and the so-called 21st century skills were also emphasized in this new policy. Arts education was considered an important pillar in this
program and the collaboration between the municipality and KCR intensified (Kenniscentrum Cultuureducatie Rotterdam, 2012). KCR worked together with several cultural institutions and schools in Rotterdam to achieve a long-term embedding of the arts in the education programme of schools. More importantly, its aim is to connect arts education with the curriculum in schools. Therefore, KCR emphasizes education through the arts instead of education in the arts: instead of focussing on learning how to practice an art form it has shifted to personal development through the arts. One of the projects of KCR is the Ateliers in School. The aim of the ateliers is to stimulate the creative skills of children while trying to create connections between other subjects. An artist guides the ateliers and tries to create an open and stimulating learning environment. Children are challenged and motivated to ask questions. Creativity, curiosity and stimulating problem-solving skills are important pillars of this project (Kenniscentrum Cultuureducatie Rotterdam, 2012). This vision resonates the ideas of Lowenfeld who considered the arts as a tool for development. Arts education was considered a method for personal growth and the development of creative skills (Tippets Christiansen, 2007). KCR’s objective to integrate arts education into the curriculum focuses on the so-called transfer effects: hoping that acquired skills in arts education will be carried over to other courses in the curriculum (Harland et al., 2000).

Each atelier is a collaboration between a cultural institution and a school. Together they decide what will be the main focus of the atelier and which method is best for this purpose. Which group would participate in the ateliers was usually decided by the school. Consequently, each atelier could have different aims and different teaching methods.

KCR decided which ateliers would be involved in this research. Several reasons influenced this decision: firstly, both ateliers suited the time-frame of the research. Secondly, both the ateliers were already a couple of years in practice, meaning that their method would be well developed. Thirdly, both the atelier of Punt 5 and the CBK focused on the same discipline, fine arts, in their lessons. KCR contacted the schools that were involved with the atelier project of Punt 5 and the CBK to inform them of my research and issues considering permission. KCR provided me the contact details of the teachers of both the ateliers and it was my task to work out the logistics of the research.
6.1.1. The atelier of Punt 5

The research started at the atelier of Punt 5. Punt 5 is a children’s atelier where children can follow art lessons. Punt 5 is located in Delfshaven and is focused on this particular neighbourhood. Their aim is to let the children gain a positive experience with art and enhance their self-image. Punt 5 started as an initiative of a group of visual artists and exist for 15 years now. One of these artists is Marion Rutten, the main art teacher of Punt 5 (Rutten, 2009). Punt 5 was already working together with different primary schools on a project-based program, when KCR asked them if Punt 5 was interested in establishing an atelier in school program. Currently, Punt 5 is working with four different schools that have a Punt 5 atelier, one of them is a school for special education (Interview A). The group I observed for this research was the nulgroep. These children are preschoolers and three years old. The aim of the nulgroep is to prepare them for primary education and the focus lies on learning through play (Bazalt/CHO, 2013). In the case of Punt 5, most of the children had an ethnic background and Dutch was not their first language. Thus, one of the aims of the atelier was to enhance their Dutch vocabulary. At the atelier of Punt 5 the nulgroep followed a program of 20 art lessons; one lesson each week which lasted one hour. Each lesson had a different theme and focused on a different element of the fine arts (Interview A). The nulgroep, from the Valentijnsschool located in Delfshaven, was divided into three different groups for the atelier lessons, thus each lesson consisted of a maximum of ten kids. Two lessons took place on Wednesday morning from 9.00 till 11.00 hours and the third lesson took place at Thursday morning, 10.00-11.00 hours. Each group was accompanied by at least two teachers or interns of the nulgroep. Marion was the main teacher of the atelier lesson and was assisted by one volunteer, either Mieke (on Wednesdays) or Fleur (on Thursdays).

6.1.2. The atelier of the Wilgenstam

The second atelier included in the case-study was an atelier founded by the CBK. However, since the teacher of the atelier lessons referred to this atelier as the Wilgenstam (after the school were it took place), in this thesis this reasoning is followed. The atelier took place at primary school the Wilgenstam in the neighbourhood of Schiebroek. Anton Klein was the artist who guided the atelier lessons. Art plays an important role in the school; they have an extensive list of afterschool activities that involves dance, music, media and the fine arts (De
Wilgenstam, 2014). The atelier took place at the school in a room where the technique lessons took place. The atelier consisted of 25-30 children who belonged to the first grade of the school. Therefore, most children were aged four or five years old. Anton was the main teacher in the atelier lessons and was assisted by their regular teacher Lia. The atelier was an eight week program where the lessons had a duration of two hours. The school tried to connect the atelier to their philosophy lessons; both shared an overarching theme and had the same aims (Interview F). This atelier was based on the principles of the Reggio Emilia approach (interview F).

6.2. Observations

As previously stated, a mixed method approach was chosen to collect the data. One of these methods was in the form of observations. Observations are defined as “the collection of data through the use of human senses” and “the act of watching social phenomena in the real world and recording events as they happen” (Matthews & Ross, 2010, p. 255). The observations were carried out overtly, meaning that the research participants, in this case the children and the teachers from the ateliers, were aware that they were being observed. The type of observation was a simple observation: I was not part of the process and stayed, as much as possible, an objective outsider. Consequently, this method ensured that I did not interrupt the two ateliers that were observed (Matthew & Ross, 2010). The observations were naturalistic observations, therefore I observed what happened ‘naturally’ (Arthur et all, 2012). Before the start of the research an observation scheme was conducted. Important to note, is that after the research finished the aim and research questions of this thesis changed. This will be discussed more elaborately later in this chapter. Initially, the research focused only on the teacher and the children, which is echoed by the observation scheme and interview guide. Two observations scheme were created; one centred on the teacher and one focussing on the children. The scheme was structured the same as the atelier lessons were structured. Each atelier structure will be explained in the following chapter. Per element of a lesson three questions had to be answered: What is going to happen, what are the teacher/children doing and what are they saying? The same observation schemes were used at both ateliers. The observations schemes are attached to this thesis as Appendix A. The observations, and thus the observations notes, were conducted in Dutch. The observations at the two ateliers will be discussed separately.
6.2.1. Observations at Punt 5

Before I started my research at the atelier lessons of the nulgroep I was allowed to visit one lesson of a different atelier at Punt 5. Thus, it allowed me to do a test observation; I was able to test my observation scheme and gain an insight at the atelier lessons of Punt 5. One week later the real observations began. In February my research started: I observed each week two lessons on Wednesday morning and one lesson on Thursday morning. A total of seven lessons were observed. At the end, three different lessons were observed: each lesson was repeated a total of three times for the different groups. After three observed lessons permission was granted to film the remaining lessons. However, due to storage problems on the cameras only two lessons were completely filmed. One lesson was filmed for 20 minutes and another lesson was only filmed in short clips. A total of 144 minutes and 49 seconds was recorded. During the observed lessons I tried to stay an outsider and not interfere with the lessons, but sometimes the children involved me by asking me for materials or showing me their work. After the observations the notes were typed out at my home with the help of photos of the lessons. Later, when I had permission to film the lessons, the filmed material was also included in the notes.

6.2.2. Observations at the Wilgenstam

The observations were different at the atelier of the Wilgenstam. Unfortunately, both ateliers took place at the exact same dates and time and the atelier of the Wilgenstam finished shortly after the atelier of Punt 5. Therefore, I could only observe two lessons of the Wilgenstam in March. I did not receive permission to film or photograph the lesson and had to rely solely on my observations notes. In comparison to Punt 5 I collected less data through observations at this atelier. As explained earlier, the atelier consisted of at least 25 children. This resulted in a more chaotic and busy atmosphere which made it harder to observe the lessons. Since the children were older, and more fluent in the Dutch language, they were more assertive in talking and involving me into the lessons. Consequently, I found it harder to stay an outsider at this atelier. Afterwards, the observation notes were typed out at my home. Due to all these circumstances less data has been collected compared to the atelier of Punt 5.

2 Each atelier lesson at Punt 5 was photographed either by Mieke or Fleur, an intern or one of the regular teachers of the class. Consequently, some of these photos were put in this thesis to illustrate certain findings.
6.3. Interviews

The other method of collecting data was in the form of interviews. The interviews were semi-standardised, which means that I was free to alter the order of questions and able to probe for more information, if necessary (Gilbert, 2008). The interviews were conducted with an interview guide. As with the observations, the initial research differed and thus impacted the interview guides. Both the artists who taught the ateliers and the regular teachers of the children that were involved in the ateliers were interviewed. Unfortunately, due to the young age of the children, and in the case of Punt 5 their limited Dutch language skills, I was not able to interview the children. Therefore, I did not gain an insight in their beliefs or understanding, but could only observe their behaviour. The first interview guide was the same in both ateliers and discussed the aims of the ateliers, the structure and the teaching method. The second interview differed per atelier and was based on the observations and first interview. It focused on the insights and motivations of the teachers and to highlight some observed patterns. The artists, Marion and Anton, were interviewed twice, once during the observations and once after. The interviews took a minimum of 16 and a maximum of 67 minutes. The interview guide and the interviews were conducted in the Dutch language. The interviews took place in February, March and April. All the interviews were recorded on my phone. The interview guides are attached to this thesis as, respectively, appendix B. All the interviews were transcribed by using the software of ExpressScribe. The process of interviewing will be, as with the observations, discussed separately per atelier.

6.3.1. Interviews at Punt 5

A total of six interviews were conducted at Punt 5 with a length that varied from 25 minutes to 67 minutes. The first interview was an unstructured and spontaneous interview: one lesson was suddenly cancelled and Marion and Mieke informed me about Punt 5. This conversation was recorded, and thus, is the first interview. Three other interviews with Marion and her two assistants, Mieke and Fleur, were conducted halfway through the observations. However, the interview with Mieke was not recorded properly, thus I was not able to use it for my research. With Marion a second and longer interview was conducted after the observations were finished. One teacher of the nulgroep also agreed to an
interview, however she wanted it to be conducted by email. All the interviews, except the
interview per email, were conducted at Punt 5.

6.3.2. Interviews at the Wilgenstam
In total three interviews were conducted: two with the art teacher, Anton Klein, and one
with the regular teacher Lia. The interviews differed from 17 minutes to 47 minutes. The first
interview was conducted halfway through the observations. The last two interviews were
conducted after the observations. All the interviews took place at the Wilgenstam school.

6.4. Previous aim of the research
As previously stated, the initial aim of the research was different. The original purpose of the
research focused on teaching- and learning strategies. A focus on materials, as is now
included in the research, was not considered. Consequently, the observations schemes and
interview guides were based on this first approach. However, after the data collection was
completed I noticed the emphasis on materials in my data. Consequently, I found it hard to
relate the collected data to each other and create a coherent whole that would measure to
the standards of a master thesis. After further research in the literature a different subject
was chosen.

6.5. Data analysis
The collection of data between January and April 2015. When all the data were collected and
transcribed the coding process started. The observations and interviews were coded
together. However, the ateliers were both separately coded. First, I started coding manually
the data in order to get a feeling for the process of coding. Later, I switched to electronic
coding through the use of the coding software of Atlas.ti. I based my coding process on the
proposed steps by Strauss and Corbin: open coding, axial coding and selective coding (1998).
In the first step, I coded all the data that looked valuable for my research. I did not focus on
my research question per se, but highlighted all the interesting data that could be potentially
intriguing for my research. I ended up with over 100 codes, varying from singing,
demonstrating, asking questions, collaboration to initiative with children, explaining to
teacher, expression. This process can be identified as open coding (Strauss and Corbin,
1998). In the second step, I tried to relate my, seemingly random, codes to each other. I
categorized most of the codes, which the software dubbed as code families. Examples of these code families are: social interaction peers, inquiry-based learning, demonstration, or inspiration moment. Strauss and Corbin (1998) called this step axial coding. The last step, selective coding, I related all the code families to larger themes that I would build my analysis on (Strauss & Corbin, 1998). These themes consisted of aims, structure, children, teacher and materials. The coding scheme can be seen on Appendix C at the end of this thesis. The description and analysis of these findings will be presented in the following chapters.
7. Analysis and Results

This chapter focuses on the analysis of all the collected data. This analysis explores the choices the teachers made concerning their role and the chosen materials and its impact on the learning effects in the arts education project ateliers in school. This will be explored through the following questions:

- What are the aims of ateliers in school?
- What was the role of the teacher in the ateliers and why?
- What material was used and why?
- What is the relation between the role of the teacher, material and children’s experience?
- Which learning effects are observed?

Throughout the analysis connections will be created with the theoretical framework and patterns discussed. Both ateliers will be discussed separately.

7.1. The atelier of Punt 5

7.1.1. What were the aims of ateliers in school?

Atelier Punt 5 focuses on the fine arts and has a special group in the atelier: the *nulgroep*. The *nulgroep* is an initiative of the city of Rotterdam and focuses on reducing possible developmental gaps of young children: There is a focus on cognitive skills (language and mathematical), but it also wants to develop their social competences and fine motor skills. These children are preschoolers and three years old. The aim of the *nulgroep* is to prepare them for primary education and the focus lies on learning through play (Bazalt/CHO, 2013).

In the case of Punt 5, most of the children had an ethnic background and Dutch was not their first language. Therefore, one of the aims of the atelier was to enhance their Dutch vocabulary.

The *nulgroep* follows the general consensus by manifold researchers that play-based learning is one of the most effective methods in primary grades (Jachyro & Fusco, 2014; Thomas et al., 2012). It is theorized that it stimulates the learning-, and problem-solving skills and supports the imagination and creativity of children. Children can explore their environment and discover the possibilities of experience (Eisner, 1994). Consequently, some researchers claim there is a link between language development and the arts (Colbert, 1995; Terrini, 2010). Therefore, it is a logical choice to integrate this aim in the atelier. This is mostly emphasized by Marion reading a book to the children during the inspiration moment.
and focussing on an unknown word for the children: “We try to work with it, repeat it and put attention to that word, so the child does not only learn that word, but also has an experience with it” (interview 2). Some research focuses on experience as a key to language development; children learn new words with all their senses and connect associations to concepts. When they have a first-hand experience with a new word they are able to better remember this word (Høigård in Frederiksen, 2011).

Marion follows this theory and views experience as one of leading objectives of Punt 5: let children come in contact with the fine arts and let them gain an experience with it. In her own words: “I do not want to make painters of them, but I like that they know the colour blue: meaning that they literally had their fingers in the paint, and thus-, really experienced it. I valued this more than them painting really well” (interview A). The atelier is the place where children can explore their own ideas, are able to experiment and discover new things. Therefore, Marion wants to offer the children space and freedom and even though there is a theme and assignment each week she wants the children to follow their own ideas and creativity. The theme offers a beginning, a way to inspire the children. This inspiration moment in the beginning of the atelier lessons has the aim to stimulate all the children’s senses (interview A). Therefore, multi-sensory learning methods are an important part of the atelier. This will be more thoroughly explained in the chapter concerning the materials.

Another important aim of the atelier of Punt 5 was to give the children confidence to explore and express their own ideas. From experience Marion knows that young children like it when they have a starting point. Therefore, during the beginning of the lessons there is not only an inspiration moment, but also a demonstration with emphasis on techniques, for example how to handle tools or materials:

“It is one of my core principles to start with a demonstration, a technical demonstration. To explain how to hold a brush and demonstrate this quite literally and really focus on the technique. To give the children confidence from where they can focus on how to express themselves, that is basically it (interview A).”

The point of the demonstration was to take away any initial nervousness or anxiety the children might have and give them the tools, quite literally, to overcome this fear and start working. This aim also concerns the atmosphere inside the atelier lesson: “the children need to feel free, to have the opportunity to move and get dirty if they want to” (Interview B). Therefore, Marion emphasized personal contact with the children and focussed on positivity
during the lessons. Again, this will be more thoroughly explored in the chapter about the role of the teacher.

In sum, the main focus of this atelier is on language development, the experience of art and expressing ideas through art.

7.1.2. What was the role of the teacher?
As discussed earlier the leading theme of Punt 5 was experience. While emphasizing experience the other aims were to let children come in contact with art and give them the confidence to express their own ideas. Consequently, Marion adjusted her role of teacher to the aims of the atelier. A few patterns in her teaching can be discovered, namely her presence in the atelier, a focus on complimenting and the use of body-language.

The first pattern that was visible in Marion’s role as a teacher is that she was very present during the atelier lessons. The atelier had a fixed structure throughout the lessons which started with an inspiration moment, a demonstration, the children working independently and a conclusion of the class. During the inspiration moment and the demonstration she was the leading force aiming to inspire the children and get them excited to work. However, when the children worked independently on their artworks Marion continued her guiding role. Instead of blending into the background she mostly stayed on the foreground trying to talk to each child individually: “[I want to] give them attention one-to-one after the inspiration moment and demonstration. […] That is a bit of the secret of my lessons, to give a child personal attention, that if a child wants to take a step you can encourage them to do so” (interview A). To ensure this she enlisted the help of a few volunteers, Mieke and Fleur. Marion wanted to guide the children throughout the whole atelier lesson while still encouraging them to follow their own ideas. It was important for Marion that even though she was hovering around the children she did not influence their artwork. She wanted to respect their ideas and took them seriously: “To be interested in what kind of story they have […] and try to help them with it” (interview A).

Marion’s ideas of teaching echoes the theory of Burton (1980) of the importance of teachers involvement in the artistic development of children. The teacher can help children to make more conscious decisions about their art. However, they should not tell the child what to do. They still need to be free to follow their own ideas. According to this theory an
involved teacher could create a more enriching art experience for a child and positively influence their learning process.

This pattern was mostly characterized by Marion’s emphasis on asking the children open-ended questions. During the inspiration moment her questions focused on what the children knew what was on the wall, or what she was holding or pointing at. During the demonstration the emphasis shifted to practicality and interaction; for example, whether all children could see clearly what Marion was doing or which colour she should use (observation G). When the children started to work independently, Marion walked around asking them how it was going. Often, she asked practical questions like where can I put your name on your work, what is the top of your work, if they were finished working or if they wanted more materials (observations A to G). It became clear that Marion, Fleur and Mieke tried to talk to each child individually. Often, they initiated the first contact. However, when the children wanted something they approached either Marion or one of volunteers (observation A to G).

Marion’s teaching role focused on giving personal attention to each child while still respecting their own ideas. By asking several questions she empowered the children: they could decide what they wanted to do, what colour they wanted to use and when they finished their artwork. The children could make their own decisions and were not forced to so: they had their own agency. Consequently, throughout the atelier they grew more confident and became more active in choosing what they wanted. Marion’s teaching method was also echoed in their artworks: each artwork was different. It could be concluded that active involvement in children’s artistic development could mean a more enriching art experience as proposed by Burton (1980).

A second pattern in Marion’s teaching was an emphasis on complimenting the children. This directly relates to the aim of trying to create a positive environment for the children. Throughout the whole atelier lesson many compliments were offered to the children, often when they were working individually but also when they were in a group. Marion explains her technique as follows: “To accept the child’s choice to say that it is good, special or just well done. [...] To have the confirmation that you are doing well and then it is easier to take that extra step” (interview D). During these moments she tried to focus on each child individually and build up their self-confidence. Consequently, she encouraged them to take some extra steps in their work and follow their own ideas. She wanted each
child to leave with a good feeling after each lesson. Therefore, she liked to end the art lessons on a positive note. Marion explained:

“We would like to give each child a compliment on how well they worked today. And that is why we have the stamping ritual at the end. During that part we see all the children individually. [...] So the stamping ritual is a way for me to touch them and to send them away with a good feeling about this lesson” (Interview B).

Consequently, the stamping ritual also served as a reflective moment for the children. However, the reflection served more as ending the atelier as a positive experience.

Most of the compliments during the inspiration moment and the demonstration focused on positively emphasizing when they answered a question correctly: “Very good, you all are very smart children” (observation B). However, most of the complimenting took place when the children worked on their artwork. Marion tried to give every child personal attention and to compliment them on their work; these compliments focused on how good or beautiful their works were (observation A to G). Marion did not only compliment the children, but also tried to stimulate them. For example, when Marion announced to the children that they would paint today and one child answered that he could not paint. Marion took the child’s hand and said: “of course you can paint. You can paint really well. I am going to show you in the other room” (observation G).

The emphasis on positivity in the atelier of Punt 5 created an environment where children felt free to express themselves. Eisner (2002) theorized that receiving praise or recognition can have an important effect on the children’s experiences. Thus, by praising the children when they were working on it confirmed to them that they were doing well. It could push them to take an extra step or learn something new. Besides, it is motivating to work in a positive environment. Consequently, complimenting the children could create positive memories and associations with the arts.

The third pattern that was observed is that Marion relied on body language to get the message across in the atelier lessons. This relates to the fact that the majority of the children in the nulgroep were not fluent in the Dutch language. Thus, only verbal explanation might not understood by the children. This pattern was evident throughout the whole atelier lessons. Trying to explain both verbally and non-verbally was mostly done during the demonstration. Marion explained: “Do not tell this is how you glue it, that whole sentence would not be understood. [...] But I showed them how to hold a pot of glue, how I squeezed
the glue pot to get glue out of it and how to glue something together. Consequently, I always explained exactly what I am doing” (Interview E). In order to get her message across she used body language to overcome any possible gap between her and the children. When the children worked independently on their artwork Marion used body language mostly to connect with them: “[...] If I cannot look them in the eyes or touch them it is hard to make a connection” (interview E).

Young children are predominantly visual thinkers, so concrete examples help children to understand better. To provoke several senses creates a richer learning environment. Consequently, it will help children better remember (Gorjian et al, 2012). According to the Reggio Emilia approach communication exist in multiple languages, both verbal and non-verbal (Cadwell, 2003). This notion is echoed by Bresler (2004) and Saracho (2012) who are advocates for embodied learning.

Marion’s use of body language became clear in the observations and was mostly expressed during the demonstration and when the children worked on their artwork. When Marion demonstrated how to mix colours she made a point to not only explain how to mix the colours (“you take a bit of this one, and then this one and then you let the two hug”), but also show it slowly and repeatedly to the kids. She demonstrated every technique thoroughly: from holding the palette to putting paint on the paper all the while explaining what she was doing. To make it even more clear she dropped to her knees so the children could see on their eye-level what was happening (observation G). Often, she repeated some of the movements when the children worked independently, but the main focus shifted to creating a connection between her and the children. Almost every time when Marion interacted with a child she ensured that she was on eye-level with them by sitting on her knees or by squatting. Often, she swiftly touched their backs when they were asking something or when she gave them a compliment she emphasized this by patting them on the back or shoulder (observation A to G).

It can be concluded from the observations that the children reacted well to Marion’s emphasis on body language. It made it easier for the children to follow the demonstration.
then it would be if there was just a verbal explanation. Consequently, it was more fun to watch and, judging by the children enthusiasm, it also inspired them to start working themselves. It added to the positive environment of the atelier that Marion wanted to create. Instead of putting pressure on the children to understand every word that she uttered in the atelier, Marion made it easier for them to follow what she was saying. The children were still exposed to the Dutch language, and thus-, and could maybe even link words to the movements that Marion was making.

According to Breslers’ (1994) theory three orientations towards teaching visual arts education can be identified. The first orientation, the rote-teacher orientation is an imitative teaching style, which is often found in the other subjects of the curriculum. The children are expected to model their artwork after the example created by the teacher. Most of these art lessons are planned out; the children should follow the instructions, which means that the children’s process is controlled by the teacher (Bresler, 1994). The student-centred orientation can be described as giving the child the utmost freedom; they are able to make their own decisions and the teacher provides no instruction and is mostly viewed as a provider of materials (Bresler, 1994). In the higher-order cognitive orientation the teacher is more present during the lesson then in the student-centred orientation. The focus lies more on teaching knowledge on art (colours, techniques). The process of an artist gets highlighted and there is an emphasis on the discussion on the ideas of the children (Bresler, 1994). Marion was very present during the art lessons and focused on highlighting the experience of an artist. During the lessons she tried to incorporate reflective moments, but the emphasis was mostly on complimenting the children, thus creating a positive environment. Therefore, Marion’s approach to teaching could be described as predominantly the higher-order cognitive orientation with pieces of the student-centred orientation. Consequently, it provided a positive, traditional experience with the arts for the children.

**7.1.3. What materials were used and why?**

In the last paragraph it became clear that Marion adjusted her role of teacher to the aims of the atelier. The choice of materials for the atelier lessons also have been chosen for these specific objectives. Three patterns concerning the materials were discovered: Most of the tools in the atelier were considered traditional art materials, other materials were there to stimulate the children’s senses and to visualize the theme.
Firstly, Marion chooses to focus on traditional art materials. Basically, the tools and materials that an artist would use were offered to the children. Therefore, the materials that the children worked with varied from different kinds of paints to easels, but also cardboards, colour pencils and scissors. However, Marion had one condition concerning the materials; they had to be qualitative, good materials. Meaning that the children would be working with, for example, clear colours and strong cardboards. However, the main objective of the chosen materials was to let the children experience to be an artist by incorporating its materials:

“Thus, [they worked] on big papers with real paint and real brushes. Of course, all of that was on the level of the children, but they worked with real and good materials. They have worked with etches, paint on easels and big papers. I tried every time to give them an experience that came close. Close to how artists work” (interview B).

Consequently, the materials were emphasized during the atelier lessons. Instead of using simplified terms for describing the materials the technical terms were adopted when they talked about the materials. Even though these words might be more difficult to understand for the children. Marion explained:

“[...] I used artistic words and expressions, because those are beautiful words, like pipette. When talking about colours, I used words like ochre and lilac. [...] Those words were really new for the children” (interview A).

According to Eisner (2002), the use of this technical art language can deepen the depth of understanding the arts. Kervalage (1995) argues that sensory involvement with objects and artistic experiences enhances the ability of children to “produce, perceive and respond to art” (p. 60).

Several researchers believe that art experiences can create powerful memories (Rettig and Rettig, 1999)

Just like an artist would do, the children worked on an easel and received a palette with three different colours (observation G). Not only were the techniques and materials close to the
experience of an artist, but also the language that Marion used during her lessons. Most of the times she emphasised technical terms like paintbrush, easel and palette (observation G). The children were encouraged to use the technical terms for all the materials.

To emphasize traditional art materials the children gained a comprehensive experience with the fine arts. Consequently, by learning different techniques and an emphasis on artistic words they gained a better understanding and knowledge about this field of the arts.

A second pattern concerning the materials was to stimulate the children ‘senses. This was especially the case during the inspiration moment, the introduction of the atelier lessons, and the demonstration. Marion wanted to provoke all the senses of the children and let them gain an experience with the theme: “I noticed that the children were really interested in materials. [...] How does something feel, can I touch it and so on. [...] A lot of things were completely new for the children (interview D). Besides the visual materials on the wall that were present during the inspiration moment, often other elements were incorporated to catch the children’s attention like a doll, a video clip or some kind of performance. Most importantly, Marion tried to switch it up and do something different each week, and thus-, tried to surprise the children. Consequently, it helped to make the theme of the lessons more tangible.

The theory of multi-sensory learning echoes this notion: Several researchers believe that children learn easier and remember better when multiple senses are involved (Gorjian et al, 2012; Rettig and Rettig, 1999). When the objects and materials relate to the children imagination, ideas and experiences it is easier for them to make sense of it. Consequently, it provides a richer learning environment for the children which could be motivating for children to learn (Gorjian et al, 2012).

During the observations it became clear all kinds of different materials and objects were incorporated, mostly during the inspiration moment to inspire the children and let them gain an experience with the theme. Often, several senses were stimulated and was different each time. For example, during the theme winter Marion brought ice to the atelier and all the children could touch it. Therefore, gained an experience with the theme winter and associating this with cold. During the theme autumn sound effects of a storm played during the lesson. While during another theme Marion created a shack in the atelier with all different shiny objects, like mirrors, inside where the children could crawl into with
flashlights and discover for themselves what would happen if they shined some light on the shiny objects (interview A). Often, Marion incorporated some kind of performance for the children. For example, one lesson focused on the theme inside the body. Marion introduced the theme with a performance which involved a doll whose insides, like the heart, liver and intestines, could be pulled out. The performance started with noises of an ambulance (sound), when Marion explained an organ to the children she emphasized the word (“this is a heart”), she used her body to show what it does inside the body (she put her hand in front of her chest and created a bouncing motion) and made noises that fitted with the heart (“boom, boom, boom”). Some children followed her lead and made the same motions and noises. Afterwards, the organs were passed through the circle and all the children were able to feel the organs (observation D to F). Later during the art lessons, when the children worked on their silhouettes, these sounds and motions were being repeated by the teachers and the children. It became clear that the children recognized the sounds and motions and started nodding, smiling or repeating them (observations D to F).

The use of multi-sensory learning methods created a more fun environment for the children to learn, which was evident by the laughter and smiles of the children. Consequently, by switching up the inspiration moment each lesson was more surprising and interesting for the children. By creating a small performance with each word and a cuddly toy that visualizes the word gave them not only an image with the word that was emphasized, but also an experience. As observed, many children repeated the word and the motion that belonged to the word. Thus, it could confirm the theory that children learn a word better when they gain a first-hand experience with it (Hoigard in Frederiksen, 2011). Consequently, by involving multiple senses the atelier became a more fun and rich learning environment which motivated the children to learn.

The third pattern concerning the materials was to help visualize the theme for the children. When the children entered the atelier room several visual imagery relating to the theme were already taped to a wall. There were all kinds of images: photos, drawings and paintings. Marion relied heavily on these visual imagery:

“[I used] lots and lots of visual material. Better too much then too little, so I could show them all kinds of examples and talk about them. Photo’s, artworks, paintings and if possible, spatial items, those were a great help. Otherwise it would be to
abstract for the children: they would try to translate the sentences in their heads and not listening to what I was telling them (Interview D).

Marion used visual materials to explain the story or theme to the children. She needed to cater to the young age and language barrier of the children:

“[...] When you want to read a book, it is very logical that the children are bored after four pages if they can’t understand the story. [...] So that is why there were pictures hanging on the wall, so they could still follow the story” (Interview A).

When Marion wanted to introduce a difficult theme she started with simple imagery to give the children a starting point. Additionally to easing the children into the theme of the day, it made it easier to cater to the different levels into the classroom (Interview D).

Different theories underline this idea of visualization. Especially young children, whose language is not yet fully developed, are visual thinkers. Therefore, visual examples could help the children grasp the concept better (Gorjian et al, 2012). Visualization is a technique of multi-sensory learning. This technique develops their eye for details and makes it easier for them to associate with their own experiences (Gorjian et al, 2012).

Especially during the inspiration moment, many different visual imageries were present (observation A to H). These images were different each time: sometimes she copied the images of a book and put them on the wall behind her in order to make some kind of comic book. Therefore, it was easier for the children to follow the story Marion was reading. When the atelier was about silhouettes Marion introduced the theme by using a popular children’s book (the Gruffalo) which contained an image of the shadow of the animal. She copied this image and put it on the wall for the children to see. Later, she recreated this image with a doll of the Gruffalo. Consequently, several other images of a silhouette were shown. These images were simple, like Jip en Janneke and pictures of animals, or more abstract like a painting of Magritte (observation A to C). By showing the children all these different images they could decide for themselves what they were interested in and wanted to talk about (observation A to C, G). Some children pointed to the

During the theme silhouettes an image from a book was recreated with a doll.
Jip en Janneke picture, while others started talking about the silhouette of a seahorse. One girl looked at the Margritte painting and asked why it was inside out (observation A to C).

The images on the wall gave the children a starting point for the theme. Since there were some language barriers visualization was the easiest method to overcome this gap. This was especially true since images of all levels were offered to the children. Therefore, Marion let them decide what they wanted to talk about. The agency was left with the children. It also became evident that the images were a good start for the children to associate the pictures with their own experiences and ideas. Especially when they entered the atelier they went to the wall and started talking about what they saw in the pictures. Consequently, they talked about their own experiences or memories. Thus, confirming the theory of visualization methods (Gorjian et al, 2012).

Concluding, three patterns concerning the materials were discovered. The tools that the children used for their lessons were traditional art materials, adding to the experience of an artist. The other materials served for stimulating the children’s senses and visualizing the theme. This lead to a more fun and stimulating learning environment for the children.

7.1.4. What was the relation between the role of teacher, the material and children’s experiences? 
As described earlier Frederiksen (2011; 2012) argues that learning is a process of the sum of both the teacher and the children’s beliefs, understanding, feelings, interests, imagination and the use of materials. Thus, these three elements have an equally important part in the learning of children. How this relates to the practice in class will be explained through two examples that were observed in the atelier. First, one pattern of behaviour of the children will be discussed.

One pattern that was visible in the behaviour of the children in the atelier lessons was their reliance on body-language. As mentioned earlier, for most of the children of the nulgroep Dutch was not their first language. Therefore, it was harder for them to verbally articulate what they wanted. Consequently, their non-verbal communication skills were all the more stronger. Therefore, they relied more on their body language to express what they wanted. Marion underlined that the children were very strong non-verbally and independent:
“I think that these young children could make quite clear what they liked and they all had their own preferences. They created really different things and they all had their own play. And here [in Punt 5] they felt really free and cool. They pointed to what they wanted and I think they were doing this really well” (interview B).

As theorized earlier, the Reggio Emilia approach focuses on the principle that children can express themselves through different languages, both verbal and non-verbal (Cadwell, 1997). Other researchers endorsed the use of the body in education, most notably Bresler (2004) who advocates embodied learning where the body is a medium for making sense of the world. For young children, who’s speech is not yet fully developed, communicating through their body is the easiest way to express themselves. Consequently, movement can help children develop their creativity and sense of adventure (Saracho, 2012).

This pattern of body-language was visible throughout several examples in the atelier. When asked which colour paint they wanted, they pointed to a certain paint bottle. When the glue bottle was empty, they started shaking it. Another child who indicated that she was finished with painting put her brush and palette on the ground, while another girl was shaking her hands to point out that her hands were dirty (observations A to G). However, not only did the children show what they wanted, but also how they felt. It was harder for them to say that they had a good time or enjoyed painting today. Therefore, a smile, clapping in their hands or jumping was a good indication that they enjoyed the art classes (observation A to G). There was even a girl who sang while she was painting (observation G). Not everything was completely non-verbal, sometimes the children expressed themselves in one word or short sentences. For example, when some children finished their artwork, they simple just said “done”. Often, the children pointed to their artwork and said “pretty” or “teacher” (observation D to G).

It can be concluded that the children were very capable in expressing what they wanted through their non-verbal communication skills. They made clear what they wanted, but also showed how they felt through their body language. Therefore, these observations confirm the theory of the Reggio Emilia approach (Cadwell, 1997) and Saracho (2012).

The past chapters focused on the choices the teachers made concerning their own role and the chosen materials and its effect on the children. The conditions that the teachers created with their decisions had an impact on how and what children learned in the atelier. This will be highlighted in the two following examples that were observed.
The first example focuses on a girl and her experience with purple paint. (observation G). She showed me her palette where not much paint was left. I could not understand what she was saying, but because of the gesture she made with her palette, I asked if she wanted more paint. She showed her palette again and walked over to the paint bottles with her paintbrush in her hand. Immediately, the girl pointed her paintbrush towards the purple bottle. Marion, who was at the table with the bottles of paint, said: “so you want the colour purple”. Marion added some purple paint to her palette and the girl walked back to her easel. She immediately started painting with the colour purple. After a while, the girl came back and pointed again at the bottle of purple paint. Again, she got new paint and continued painting. Then, she walked to the table again, her palette smeared with purple paint, and pointed yet again with her paintbrush to the colour purple. She bowed her body forward when she pointed for the bottle. I asked: “do you want the colour purple?” The girl said: “purple” and pointed at the bottle again. This time she reached out to the bottle and took it herself. She let go of the bottle, pointed her paintbrush at it again and said: “purple”. I reacted by saying: “you want purple, that is a nice colour, isn’t it?” The girl followed the bottle with her eyes and just reacted with “purple”. The girl smiled and walked back to her artwork when she got the paint. Afterwards she came back two times, both times saying “purple” and pointing at the purple bottle of paint. She said the word purple multiple times. When the lesson finished she did not receive any more paint. She stayed at the table and kept pointing at the purple bottle while saying purple the entire time. When looking at her artwork, everything was purple. She started with other colours, but when she discovered purple, she repainted her artwork. The girl started talking again, pointing at her artwork, her palette and the bottle of purple paint. The only word that I understood was “purple”. One of the teachers noticed the girl yelling (purple!) and explained to me that the girl did not know the word before. The girl yelled “purple” again and smiled (observation G).
This example of a young child learning a new word touches upon a few theories that were described earlier. Firstly, as described earlier Frederiksen (2011; 2012) argues that learning process is the sum of both the teacher and the children’s beliefs, understanding, feelings, interests, imagination and the use of materials in the lesson. Thus, three elements have an equally important part on the learning of children. Therefore, creating knowledge is viewed as an active negotiation between a combination of social, individual and material factors. However, it is important to note that is hard to predict what will be learned, especially if young children are involved (Frederiksen, 2011). This theory of learning is the foundation of the concept aesthetic learning process which tries to explore the understanding of the specific learning in arts education. It emphasises the concepts of experience and expression in the arts (Frederiksen, 2011). Consequently, it is believed that learning emerges from experience (Dewey, 1934). Knowledge creation is being explained as an interaction between ideas and experiences (Ackerman, 2004). Høigård (2006) theorizes a direct link between experience and language learning. When a child learns a new word, a connection between an experience and a concept is created. Thus, in order to learn a new word they connect emotions and association to the concept. Therefore, learning new word happens with all the senses of the child (Høigård in Frederiksen, 2011). This is a so-called first-hand experience it will be better remembered by the children then explaining the meaning of a word to children (a second-hand experience (Høigård in Frederiksen, 2011).

As explained earlier one of the aims in the atelier focusing on experience. The experience of art, the experience of being an artist, but also to experience words. However, in order to create these experiences several conditions have to be created.

First, Marion’s role as a teacher influenced heavily the conditions of the atelier. She was present throughout the entire lesson and always there to guide the children or tend to the children when they had questions. Her standard structure of the lessons consists of a demonstration where she explains, both verbally and non-verbally, how to handle the tools and art materials she provided to the children. Consequently, the girl in the example did not have to figure this out herself and could focus on painting her artwork. Another result of Marion’s role as a teacher is that she was immediately there to help the children if they needed it. In this case she enabled the girls’ learning experience by providing her the purple paint and the word that belonged to the colour.
Secondly, the materials also had an important role in this example. Most of the materials in the atelier were considered as traditional art materials and thus, adding to the experience of art. In this particular example the children had palettes, easels, paintbrushes and several different colours of paint. Thus, it created the condition that the children could explore and experience what is to paint like an artist. Consequently, since there were several colours where the children could choose from it gave the children to choice to explore the colours they were interested and thus, gaining an experience with that colour. The child had the idea to paint with purple and by painting with it she could experience it. Therefore, it follows the theory of Ackerman (2004) that learning is a interaction between ideas and experience.

Thirdly, the girl played, naturally, an important role in her own learning process. The girls’ non-verbal communication skills allowed her to express what she wanted (the purple paint), to interact with Marion, and thus-, learning the word that belonged to the colour paint. The girl followed her vision and choose to paint with purple on her artwork. Consequently, had an experience with the world purple. Therefore, she was able to connect the concept of purple to the actual word, that she learned from and was later emphasized by Marion. By interacting with the paint and the other materials she created a first-hand experience with the colour as suggested by the theory of Høigård (2006 in Frederiksen, 2011). Consequently, several senses of the girl were involved in learning the word purple: she heard the world purple from Marion, she felt the colour while painting with it and she could see the colour, both in the bottle as on her artwork. Therefore, this also confirms the theory of Høigård (2006 in Frederiksen, 2011).

Concluding, this example shows that experience and learning is closely connected to each other. It even confirms the theory of Høigård (2006 in Frederiksen, 2011) of a direct link between language learning and experience. Consequently, this example supports the theory of Frederiksen (2011) that learning is a result between the role of the teacher, the choice of materials and the experiences of the children. Each element of the triangle played an equally important part in the girl learning a new word. Marion created an environment in the atelier where the girl was free and confident to explore and discover. Marion’s role as a guide helped and encouraged the children throughout the atelier, creating a rich experience with art for them. The materials that were offered to the children ensured the opportunity to work like an artist does and deepened their understanding about art. Lastly, the girl itself
who made non-verbally clear what she wanted and created a first-hand experience with the word purple. Together, these three elements influenced how the child learned the word purple.

A second example that supports the theory of Frederiksen (2011) was observed in the atelier. During another lesson, where the children worked with paint, one girl discovered that she could use the paint roller to colour her own hand and then make an image on her work if she stamped her painted hand on the paper. When she saw the print she made, the girl started smiling. Marion witnessed this small discovery of the child and complimented her. She even took the paint roller from the girl and started to paint the hands of the girl. The girl was laughing and showed the marks she made with her hands on the paper. Marion complimented her again and gave her the paint roller back and walked to another child (observation E).

Eisner (2002) dubbed these small, personal discoveries by children micro-discoveries and categorizes them as a new moment of understanding in the process of art-making. These micro-discoveries are influenced by the materials that the children are interacting with and the experiences of the child his/herself. Consequently, when the child expresses such a micro-discovery the attention by peers or an adult could have an impact on the child’s experience (Frederiksen, 2011). The theory of multi-sensory learning, where children are stimulated to learn through multiple senses, is also of importance here. This theory emphasizes hands-on activities where children can experiment, discover and investigate. A rich learning environment with stimulating objects that relate to young children’s experiences, ideas and imagination is essential (Boone, 2007). Dewey (1916) adds that children should have materials that surprises them, so it could stimulate their explorative play and can influence their learning process.

Again, several conditions have to be created in order to let this example take place. First, Marion’s role as a teacher is vital. She created an environment where discoveries and experimentation is possible and encouraged. When the children started working on their artworks they were free to do what they want whether this is following Marion’s demonstration, following their own ideas or experimenting with the materials. Consequently, Marion only encouraged by helping the child paint her hands. Therefore, by praising and encouraging the child Marion helped create a positive experience with interacting with the materials for the child. The child could be encouraged to experiment
more or take an extra step in her learning process. Thus, this underlines the theory of Frederiksen (2011) that recognition of a micro-discovery has an impact on the experience.

Secondly, the materials that were available also needed to invite the children to experiment with it. Obviously, this was the case in this example when the girl started to use the paint roller to colour her own hand. The interaction with the materials created a new experience for the girl and she learned through experimenting that the tool can have multiple purposes. Thus, this confirms Dewey (1916) and Boone’s (2007) theory that children should have interesting materials that can stimulate discoveries and thus, influence their learning process.

Lastly, the child itself also has influenced her own learning by the discovery. It is possible that the child was inspired by other children to do this or she was reminded of the stamping ritual at the end. However, this example follows blindly the theory of a micro-discovery which is usually present through hands-on activities (Eisner, 2002). By interacting with the material the girl learned something new about the material and its different purposes. The theory of Frederiksen (2011) is also relevant here as all three elements have an impact on the experience, and thus the learning, of the child.

### 7.1.5. Which learning effects were observed?

This last chapter will focus on the learning effects that were observed during the atelier lessons of Punt 5. Consequently, these effects will be linked to the triangle of the role of the teacher, materials and the children’s experiences (Frederiksen, 2011, 2012). Harland et all (2000) categorized seven broad learning effects of arts education which are defined as “[…] the outcomes of art lessons that pupils and teachers have identified as being associated with any effect on themselves” (Harland et all, 2000, 17). It is important to note that the observed learning effects of the atelier came from observations from seven lesson, which is only a small period of the atelier. Consequently, all the learning effects are conclusions from the qualitative research. None of the effects were measured through tests, and thus-, cannot be considered as “hard evidence” of the effects of arts educations. Only the category of learning effects that were observed in the atelier lessons will be discussed.

The first learning effect relates to forms of enjoyment and therapy. According to Harland et all (2000) this effect is the most commended and immediate effect of arts education. Therefore, it is no surprise that enjoyment was one of the most observed effects
of the atelier lessons. Often, the children were very happy during the lessons. This was mostly visible through their smiling, jumping up and down, clapping, laughter and singing. Their enjoyment was mostly visual through non-verbal communication. Often, the children were already very enthusiastic when they saw the images on the wall. Consequently, the children were very motivated throughout the atelier. They were enthusiastic from the beginning until the end (observations A to G).

The second effect relates to the acquired knowledge and technical skills of the specific art form, in this case the fine arts. This was also one of the most visible effects at Punt 5. Consequently, this was one of the aims of Punt 5: to let the children gain an experience with art and being an artist. The children came in contact with high art, such as the painting of Margritte, and they learned techniques like mixing colours and painting. Throughout the lessons they were exposed to technical terms and interacted with traditional art materials. Therefore, the children gained more knowledge about the fine arts and learned technical skills. This was influenced by Marion who provided visual imageries which included several paintings and the demonstrations where Marion explained and demonstrated several techniques. Throughout the atelier she also emphasized technical terms such as colours, paintbrush and easels. They were provided with traditional art materials and visual imagery with paintings. The children interacted with these materials and created an experience with art. Therefore, they learned more about the fine arts.

Thirdly, the next learning effect is experimentation and belongs to the category of the development of higher-order cognitive skills. The learning effect of experimentation was already discussed earlier through the example of the micro-discovery. Marion, in her role as teacher, encouraged and praised discoveries with the materials and thus, created a positive environment where experimenting and discoveries were welcome. The materials invited the children to experiment with them. Lastly, the child itself took the initiative to experiment or she became inspired by earlier experiences with the act of stamping.

Another prominent learning effect is the focus on art as a form of expression and language competency. As described earlier, one of the aims was to enhance their Dutch vocabulary. In the atelier they tried to focus on a word and gave the children an experience with it. As highlighted earlier in the example, a girl learned a new word through interacting with the materials and Marion’s role in the atelier. Marion’s role as a guide helped and encouraged the girl while the traditional art materials ensured an experience with art, and
thus-, helped create an experience with the word purple. The girl experienced the word purple through several senses.

The last learning effect is the effect of associating with their own experiences. Consequently, this effect belongs to the same category as the previous learning effect which focuses on art as a form of expression and the ability to express their ideas. This learning effect was mostly present during the inspiration moment. As described earlier a lot of visual imageries was incorporated to make the theme more tangible. Marion left the initiative with the children and focussed on asking open ended questions. Therefore, the children could focus on the images that they found the most interesting or were curious or related to it.

Concluding, several learning effects that corresponded to the theory of Harland et all (2000) were observed in the atelier lessons. The most visible learning effects were joy, gaining knowledge about the fine arts and learning technical skills, experimentation and associating with their own experiences. Consequently, most of these learning effects can be directly related to the aims of Punt 5. Moreover, all learning effects, except joy, are a result of the combination of several patterns from the role of the teacher, the materials and the children’s experiences.
7.2. Atelier the Wilgenstam

7.2.1. What were the aims of the atelier?

The atelier of the Wilgenstam was based on the principles of the Reggio Emilia approach. The Wilgenstam school was already quite orientated towards the arts considering their long list of afterschool arts activities.

One of the main aims of the atelier of the Wilgenstam was to offer the children more freedom. Today’s education is mostly focused on cognitive abilities and courses like math and language and the testing of these subjects. Consequently, this trend is more and more visible in early childhood education, even in the arts lessons they receive in class. The school teacher of the group, Lia, explained:

“Here they receive assignments. [...] I demand that the children stamp and not paint. You will work from left to right, because that is the direction in which we write. In the atelier the children were able to choose which colour they used, if they wanted to use stamps or paint and in which direction they wanted to work. That was the difference between my class and the atelier” (interview G).

The school wanted to let the children experience a different kind of learning that is not focused on results, but on the process. Anton wanted the children to be aware that there were different kinds of thinking since children are trained nowadays in thinking this is right and this is wrong. So instead of focusing on questions like, does it fit the assignment it shifts to what do you think it is or what could it be. In the atelier the children were free to express themselves in a different manner than what they were used to. Consequently, they aimed for a strong connection between the atelier-, and philosophy lessons. Usually, both courses shared the same theme and objective. This view relies on the principles of the Reggio Emilia approach where early childhood education is viewed as “the harmonious development of the whole child in communicative, social and affective domains” (Cadwell, 2003, 3). In other words, different domains should be included in their education and not just focus on the development of cognitive abilities. The Reggio Emilia approach is built on the belief that children have many different ‘languages’ to express themselves. The arts is considered as one of hundred these languages (Cadwell, 2003).

A second objective of this atelier was to stimulate the development of an inquiry-based learning attitude. Anton believed that the children have an already very curious mind, which is especially true for younger children. Therefore, he wanted to fuel this curiosity
during the atelier lesson and let the children wonder about different aspects. Consequently, Anton hoped it would help the development of problem solving skills. His choice of materials for the atelier were important tools for achieving this aim and this will be more thoroughly explained during the chapter about materials. Besides viewing the children as having curious natures he also saw them as naturally creative and this creativity should only be stimulated to get the best results: “one of the most important aims within the atelier is the development of their creativity and thus, their creativity will grow (interview G). Anton based his view of children on the principles of the Reggio Emilia approach where children are viewed as natural researchers with a desire to discover. This approach considers them as protagonist of their own learning process and thus, should be and their ideas be taking seriously (Cadwell, 1997). Anton’s view of children also echoes the theories of the child-centred approach towards arts education where the idea was proposed that each child was born with a creative impulse where teachers should only “take of the lid” (Efland, 1976, p. 71).

Besides naming these two objectives as the main aims of the atelier Anton hopes also for some other learning effects. He hopes that the children grow more confident during the atelier lessons and be proud of their own ideas. This is especially true for children who have little success moments in class. Even tough, he sees this is an important goal it is not something he focuses on believing it grows naturally during the atelier lessons. Evidently, he sees the joy children have during the atelier lessons as a very important effect of the atelier. “Sometimes enjoyment in education viewed as not so important, some kind of degradation. [...] But fun is also a quality” (interview G). Anton believes that children learn better and are more motivated to learn if they enjoy what they are doing. Thus, the importance of enjoyment should not be underestimated. This view echoes the importance of play-based learning in early childhood education. One of the characteristics of play that is should be motivating for the children. Play-based learning is considered as one of the most effective methods in primary grades (Jachyro & Fusco, 2014).

In sum, the main aims of this atelier are to offer the children more freedom in their education and to stimulate the development of an inquiry-based learning attitude. However, secondary effects, as categorized by Harland et all (2000), such as confidence or enjoyment should not be underestimated in Anton’s view. Preferably, the skills that the children master during the atelier lessons would also be transferred to other areas.
7.2.2. What was the role of the teacher and why?

As described earlier one of the aims of the atelier of the Wilgenstam is to offer the children more freedom; the children were free to decide what they wanted to make or which materials they incorporated. There was a focus on the process not on the product. A second objective of the atelier is to stimulate the development of an inquiry-based learning attitude. Consequently, Anton adjusts his role of a teacher to the objectives of the atelier.

The first pattern that can be discovered in the observations that Anton’s role as a teacher is interpreted as staying in the background and let the initiative lie with the children. This was visible where Anton, literally, stand back often in the back of the room and just focuses on observing the children. He believes in the idea of letting the children “[...] swim, especially in the beginning” and that children are “naturally creative” (interview H). Therefore, he sees his role as a teacher mostly as a facilitator; He provided the materials, or a combination of materials, and then took a step back to see what was going to happen. He tried to avoid giving instruction on how to use materials or what the children should do (interview F and H). He wanted to give children the freedom to let them explore things on their own and make their own discoveries (interview F). Anton does not want to show what the children should do. He thinks that they learn better when they discover it on their own (Interview F).

This view of teaching is underlined by the theory of a child-centred approach to arts education. Children are born with a creative impulse and their art would unfold naturally, and thus, active meddling by a teacher was deemed unnecessary (Kindler, 1995). Certain aspects of this view are also echoed by the Reggio Emilio approach. Freedom and letting the child make its own choices are important elements of this approach. The role of the teacher can differ in this approach, but one of its main objectives should be providing situations and contexts where the children are able to learn (Cadwell, 1997).

During the lessons Anton’s role was visible in several examples. Foremost, Anton stayed in the background he walked around, but he did not initiate conversations with the children. Mostly, the children went to him and asked questions. These questions differed from asking for certain materials or help with their artwork (observation H and G). The children were not steered in a certain direction by Anton. Another example of Anton’s teaching style is the lack of a strict assignment or concrete example contrasting with their regular art lessons. For example, one lesson the goal of the atelier was to create something
that should float (observation G). They started to work with what Anton told them (observation G). They could use their own fantasy and they decided what they wanted to create that lesson. When Anton talked about the goal of the lesson he tried to stay as abstract as possible; for example, he told the children to make a floater instead of a boat (observation G).

So, by consciously staying in the background the effect was that the children took the initiative to approach him. He provided space for the children to define their own moment and choices: they could chose the timing of their own learning moment. Consequently, by not offering concrete examples the children needed to tap into their creativity to create something which resulted in all kinds of different artworks with all their own story behind it. Thus, this observation underlines the theory of Cadwell (1997) and Kindler (1995). Anton’s role is not directive, but creates space. They are able to explore their own ideas and thus, in complete control of their own learning. The Reggio Emilio approach underlined this and called children “protagonists of their own learning process” (Cadwell, 1997). The children became less dependent on their teacher and learned to work and trust on themselves. This observation confirms the notion of the Reggio Emilia approach where the teacher should provide a context where the children are able to learn.

A second pattern in Anton’s teaching could be discovered, namely a focus on evaluation and reflection. In each of his lessons was a moment of reflection, either at the beginning or end of a lesson. Anton explains: “I’m a big advocate for reflection. [...] I always try to let them look back to what they did” (interview G). During these reflection moments Anton tries to let the children reflect on the artworks they made during the atelier lesson. Its aim is to let the children think about their artworks and share their ideas with the rest of the class. He wants that the children look at each other’s work, so they can be inspired by their techniques and work.

Anton’s choice to focus on evaluation and reflection is supported by the social-constructivist approach where children are viewed as active learners. Learning is seen as a social activity; meaning that children can construct knowledge by interacting with each other. In other words, they can learn from each other (Kim, 2001). Vygotsky emphasized this notion and also put a focus on the teachers role. According to Vygostky it is the teacher’s duty to create an environment where children will get actively involved with the lessons (Schunk, 2008).
The effect of the focus on evaluation and reflection on the learning is shown by an example of such a reflection moment that was observed during one of the lessons. At the end of one lesson all the children and Anton sat in a circle and Anton chooses three artworks that the children created. He used a different method each time to reflect on each artwork. For the first artwork Anton asks the child what she exactly made: “a floating theme park, however it is only for girls” (observation G). While the other times Anton asked the children to guess who made the other two artworks. Anton asked about one artwork what certain elements are and the maker answered (“a bed, a couch, a television”) (observation G). The other children also started reacting and told their own stories (observation G). Anton focused more on details of the last artwork and asked why the boy used coloured tape. The child reacted immediately: “Otherwise it would be completely white” (observation G). The other children followed Anton’s example and asked questions. One child wanted to know how the polystyrene was glued together and the created answers: “it was not glued, but I used little sticks to connect it to each other”. The child who asked the question nodded her head (observation G).

These incorporated reflection moments provides an opportunity for the children to reflect on what they made and how they made it. Through asking questions Anton stimulates the children to think about the process of creating their artwork. Consequently, the other children can also learn from what is explained, especially which techniques they employed. They can use these techniques the next lessons.

Bresler (1994) identified three orientations to teaching visual arts education. These are the rote-teacher-centred orientation, the student-centred orientation and the higher-order cognitive orientation. The student-centred orientation is mostly present in Anton’s idea of teaching his atelier. This laissez-fair approach to teaching ensures that the children decide what they want to create and which materials they want to use. The children are in complete control of their own process; the teacher stays in the background and gives only (technical) advice, if necessary (Bresler, 1994). It became clear that Anton is not a fan of the rote-teacher centred orientation; he focused on open-ended assignments and avoided working with an example, which is common for this approach (Bresler, 1994). The emphasis on evaluation and reflection is consistent with the higher-order cognitive orientation. This approach focuses more on the discussion of the ideas of the children and the process of their work. In the student-centred orientation there is also an element of evaluation, but this
mostly focuses on handing out compliments (Bresler, 1994). Concluding, Anton saw his role in the atelier mostly as a facilitator. He tried to stimulate the children to find solutions and ideas themselves before he stepped in. However, he tried to go one step further with the children and to let them reflect on what, why and how they created their artwork. Anton’s role in the atelier could be described as a mix between the student-centred and the higher-order cognitive orientation. Anton’s approach to teaching offers the children a lot of freedom, something they are not used to in their regular classes. Since Anton stays as abstract as possible the children can only rely on their own ideas and fantasies; it enhances their creativity. Another effect on the learning of children is that Anton’s approach stimulates the children to reflect on the process of their artwork. Consequently, through sharing their ideas and techniques the children can learn from each other and be inspired.

7.2.3. What materials were used and why?

In the last paragraph it became clear that Anton adjusted his role of a teacher to the aims of the atelier. The choice of materials for the atelier lessons also have been chosen for these specific objectives, especially in simulating the curious attitude of the children.

A first pattern concerning the materials in the atelier lessons are the unfamiliar materials for the children: not only were their scissors, paper and glue on the tables, but also polystyrene, tie-wraps, bamboo, straws, sponges and pvc tubes. Anton believed that the choice of materials was of vital importance in the atelier. Instead of going to a regular art store to buy materials for his lessons, Anton visited a hardware store: “I am really a big advocate of the idea that children do not know the purpose [of the materials], so they can use it for their own purpose. The original purpose is not important, but what they want to do with it” (interview F). By bringing unfamiliar material into the classroom Anton wanted to stimulate the already curious nature of the children and spark their creativity in encouraging them to use the materials for their own goal. What kind of materials were available in the class had an impact on what the children would do with it. If he wanted to stimulate the children in some way he went back to the material: “If I bring tape and paper or if I put rope and wood on the table, how they handle the materials is different. Also, if you combine wood with paper or rope and tape you will get different solutions. So it really depends on what is available [in the classroom]” (interview F). Anton believed that surprising materials
would encourage the children to experiment and stimulates their problem-solving skills. (interview H).

Several theorists advocate for the use of unfamiliar materials in the classroom. One of them is Dewey (1916): he argued for materials that could surprise the children and was wary of fabricated materials. It benefits the children’s learning process if they can explore new materials, make mistakes and employ their own solutions with them. Frederiksen (2011) agreed with Dewey’ and believes working with surprising materials could develop children’s problem-solving skills, getting emotional engaged and proud of their artwork. Another researcher who argued for a rich environment was Eisner (2002). He believed that certain materials could provoke certain types of learning. Therefore, it is an important part of the teachers role to bring the right materials into class. However, the teacher cannot decide what the children will learn (Eisner, 2002; Frederiksen, 2011).

During the observed lessons it became clear that the children were not familiar with the materials, and thus unaware of the original purpose. Consequently, many children used the materials for their own purposes: Two boys used the pvc tubes for sword fighting, while another boy took a tie-wrap in order to connect two little wooden sticks to connect and another boy used skewers to connect his roof of polystyrene to his artwork (observation G and H). Other times a boy used a teaspoon to create a rollercoaster for his theme park or a girl glued a pattern of sponges. The children employed the materials in different ways, both practical and decorative. Another effect of the surprising materials was that the children became inspired to experiment with the possible functions of the materials. For example, even though there was glue and tape available for the children to connect things together they often tried to do this with other materials. One boy used small wooden sticks to connect polystyrene together while another child uses strings of rope. One girl decides to use the tape for purely decorative reasons; adding some colour to her otherwise mostly white artwork (observation G and H). Consequently, the materials inspired the fantasy of the children. Often the children explained what the materials were supposed to be or gave new names to some materials. For example, one boy connected two little sticks to each other with tie-wraps and called it “chopsticks for eating Chinese” while another child decided to rename tie-wraps to penguins (observation H).

It becomes clear from the observed lessons that the children react well to the unfamiliar materials that are available in the lessons. They are not hindered by the fact that
they do not know the original purpose, in fact it even helps them to unleash their creativity. It is up to the children how they want to employ the material, what kind of function it will have in their artwork and even the name of the material. It invites the children to explore the material and its functions: they learn by experimenting with the materials what works and what does not. Hence, the materials provide a challenge what stimulates their experimenting and the curious nature of the young children. It could also help developing their problem-solving skills. These findings underline Anton’s view that surprising materials sparks the creativity of the children and speaks to their natural curiosity. Consequently, it confirms both Dewey (1916) and Frederiksens (2011) assumptions about materials.

A second function of the material is that it helps Anton to make the theme more tangible. The theme, the four elements, is to abstract for the young children and choosing the right accompanying objects makes it easier to visualize the theme. He explains:

“So if you are talking about the four elements, for example the element earth, then I bring with me stones, gravel and a shovel. And if we are talking about fire, then I want to bring fire with me, but also coals. [...] So you need to make it tangible, so the children can hold or touch it and then it helps the children associate [with the theme]” (interview H).

Anton wanted to trigger the thinking process of the children, so they could already wonder about the theme. For example, with the element of water why does something sank or floats. Consequently, it is a method which stimulated the children to associate with the theme: what belonged to water or what did they associated it with (interview H). Just telling the children what the theme of the atelier lesson was to abstract, especially for these young children. Besides making the theme more tangible, it also helped the children relate to the theme and their own experiences. It was a method for Anton to already jump start the thinking process of the children for when they were going to create their artwork later in the atelier.

Again, Dewey (1954) was one of the first who encouraged embodied experience and multi-sensory learning in education. It is believed that children learn and remember better when multiple senses are triggered (Gorjian et al, 2012; Rettig & Rettig, 1999). These young children are predominantly visual thinkers: they need concrete examples. Then they can relate it to their own experiences, ideas and imagination (Gorjian et al, 2012).
In the beginning of a lesson Anton introduced one of the elements. For example, in one of the observed lessons during the element water Anton brought water and several other objects, such as screws and sponges to the class. His goal was to make the children aware of the concept floating. Each time he put a new object in the water he asked the children if it would float or sink. The children reacted very enthusiastically; they leaned forward on their chairs to get a better view and loudly voiced their opinions whether it would float or sink. Also, some of the materials were passed around so the children could feel and explore the materials. After the demonstration Anton made a connection to what the children will be doing: creating something that floats. Later in the atelier many of the children created an artwork close to the theme: some children created boats, a submarine, but also a floating theme park. Almost all the children created something which connected to water or floating; most of them incorporated light materials like polystyrene. Thus, they were able to connect their artworks to the theme Anton introduced in the beginning. Consequently, they were able to relate the theme to their own experiences and imaginations. When the children were busy creating their artwork many were talking to each other about what they were making and also explained this during the reflection moment. They were able to create a whole story behind their works. For example, one girl was explaining that she made a floating park where only girls were allowed (observation G). To employ materials to make the theme more tangible also triggers the children memories and experiences. Often, the children talked about their own experiences with the theme. For example, when the element fire was discussed Anton showed the children coal. One child reacted to the coal by talking about his vacation on a camping (interview H).

By introducing certain materials and objects to the children Anton hoped to achieve that the children would relate better to the theme, and thus-, according to theory remember it better. It was obvious, by the reactions of the children, that they liked the demonstrations that Anton provided. It also became clear during the introductions of the atelier and the reflection moments that they children were able to remember what they did the weeks before and to which theme it was related to. Consequently, the right objects triggered the memories and fantasy of the children since many related it to something they experienced or put in their artworks. Therefore, it can be concluded that the theory and Anton’s views are underlined by the observations.
In sum, the materials had an important place in the atelier lessons of the Wilgenstam and served different purposes. By bringing unfamiliar materials into the classroom Anton wanted to develop the children’s natural curiosity and sparking their creativity. The children interacted with materials that many never had encountered before, let alone played with. It provided an opportunity for the children to experiment and resonated to their curious nature. Consequently, it had a positive effect on their problem-solving skills. Often, and especially in the beginning, materials were introduced in order to make the theme more tangible and relatable to the children. Many children related their own experiences to the theme or connected it to their artworks.

7.2.4. What is the relation between role teacher, material and children’s experience?
In this analysis three components were highlighted: the aims of the atelier, the role of the teacher and the choice of materials. In this chapter three learning effects will be explored through the triangle of Frederiksen (2011; 2012). In this theory the interaction between the role of the teacher, the choice in materials and the children’s experiences influences the learning process of the children (Frederiksen, 2011). This will be highlighted by a pattern that was observed in the children’s behaviour and two micro-discoveries in the atelier lesson.

One pattern concerning the behaviour of the children in the atelier lessons could be discovered, namely the many collaborations that started in the atelier lessons. In their class their teacher often emphasized collaborations under the name of cooperative learning (interview G). Usually the children got paired up together and had little choice in the matter. However, freedom was one of the main objectives in the atelier, so the children could decide for themselves whether they wanted to work together or individually on their artwork. Anton echoed Lia’s, their teacher, view of cooperative learning. He found it important that the children talked to each other about their artwork and, especially, their techniques. When one child could not figure out how to do something, he often let them walk around to observe the other children. They copied techniques from each other and used them for their own purposes. However, he did not instruct the children to work together so they had the freedom to decide for themselves.

Social interactions have an important place in the social-constructivist theory. Vygostky argued that learning is a social progress and that knowledge is co-constructed between two or more people. Therefore, he emphasized peer-to-peer and cooperative
learning (Schunk, 2008). The Reggio Emilia approach is founded on the principles of the social-constructivism and emphasizes projects where children are encouraged to interact with each other (Cadwell, 1997).

During the two observed lessons a few children worked together regularly. Other children cooperated with each other when their help was required. For example, one lesson two boys worked together on one floater, while close to them two girls created each their own artwork, but both were identical to each other, except for the colours. The girls continued together the next week (observation G, H). When asked why they worked together, one girl mentioned that it is more fun than working alone (observation G). Other collaborations in the atelier were often shorter and focused more on immediately helping each other: two boys helped each other when they were tying a pvc tube to an artwork, other children helped each other with fastening tie-wraps and another girl offered advice to another child how he could secure something to each other (observation G, H). However, not only were the children helping each other with the materials, they also shared their ideas. Many of the children were spontaneously explaining to their neighbours, or Anton and Lia, what they created and how they were creating it (“it is a house” or “a park”) (observation G).

This pattern of collaborations can already be considered a learning effect of the atelier and was influenced by the triangle of Frederiksen (2011; 2012). In the examples it became clear that Anton was often not around to offer help to the children. In his role as teacher he purposely stayed in the background, so the children should first experiment with their own solutions. However, when they could not figure it out themselves it was probably easier to ask one of the other children for help then Anton. Moreover, the children’s past experiences with cooperative learning could also have stimulated the collaborations in the atelier. The last element, the choice of materials, also influenced the observed pattern. All the materials the children interacted with were unfamiliar materials that provided challenges. Often, the collaborations focussed on helping each other attach materials together. Therefore, the materials invited the children to work and learn from each other.

The second example was observed when the children got the opportunity to work with polystyrene. One girl started experimenting with the polystyrene and discovered that it was quite a porous material. The girl succeeded in shaping a hole through the material and put her finger through it. The girl started laughing and looked over at me. When she caught
me staring at her, she showed me her finger through the polystyrene and smiled at me (observation G). The third example, which was observed in the last lesson, tie-wraps were introduced by Anton. After the safety instructions from Anton many children started to work with the tie-wraps, often in pairs. However, there was one girl who wanted to figure out this material on her own and decided to work alone. She had a look of complete concentration on her face when she tried to connect the tips of the tie-wrap to each other. After a few failed attempts she succeeded. When she heard the same sound the connected tie-wrap of Anton produced during the instruction, she looked proud and smiled. Lia complimented the girl on her achievement and got a smile in return from her (observation H).

The abovementioned examples highlighted small, personal discoveries of the children. Eisner (2002) called these micro-discoveries. He characterized these moments as new moments of understanding and as intrinsic forms of creativity. Even though these discoveries can be very small, they can mean a lot to a child: they learned something on their own. Often, the child wants to share his/her discovery, either with his/her peers or teachers. This can have an important effect on the child’s experience (Eisner, 2002). Eisner (2002) already emphasized the use of materials in the learning process and claims that materials with certain qualities have the capacity to provoke certain types of learning. Already earlier Dewey (1916) argued against the use of fabricated materials in the classroom. According to him experimenting is the driving force behind the children’s curiosity. When children explore materials that are unknown or causes resistance it can create a connection between their past and new experiences (Dewey, 1934). The children are forced to come up with their own solutions and thus, developing their problem-solving skills (Frederiksen, 2011).

Consequently, the foundations of the Reggio Emilia approach is based on this view of learning and emphasizes the child as an active learner with a curious nature who loves to experiment and discover (Cadwell, 1997).

These small micro-discoveries give a glimpse into the learning process of the children. The learning effect of these examples are focussed on experimentation and discoveries. However, these discoveries do not stand alone, but were the result of the conditions of the atelier. The atelier was founded on the Reggio Emilia approach which already has several principles that define the conditions of the atelier.

First, the role that Anton played in the atelier could be considered a student-centred approach where he is mostly viewed as a facilitator who provided materials and blends into
the background to let the initiative with the children. Therefore, Anton is not involved in the first example. In the second example, Anton did introduce the materials, but only to emphasize the safety aspect of the materials (interview H). Afterwards, he did not interfere with the children’s interaction with the materials. Consequently, by just providing the materials and then staying in the background he pushed the children to explore the materials and follow their own ideas. Thus, the initiative lied with the children and were in control of their own learning. One learning pattern in the lesson that was created by Anton when he stepped into the background, and thus creating space, the children needed to take charge in creating their own artwork.

Secondly, the materials that Anton provided in the atelier were unfamiliar to the children, and thus-, were perfect for experimenting. Since the children did not know the original purpose, like with the polystyrene and the tie-wraps in the example, they were forced to figure out themselves what they could do with it. In the examples, this lead to the girls exploring the materials and discover that it was easy to make a hole in the polystyrene and had the other girl focussing on what the best solution was to connect a tie-wrap together. Therefore, this example underlines Frederiksen’s (2011) theory of materials that when children need to come up with their own solutions, it stimulated the development of their problem-solving skills.

Thirdly, the view of the Reggio Emilia approach of the children as active learners is confirmed through these examples. Both the children took charge in exploring the materials and were active in their own learning. Consequently, in both examples the girls looked for recognition in their achievement, seeking contact with either me or Lia. Both girls were praised and this added to creation of a positive experience of their discovery. In these two examples, the children reached a new form of understanding, what Eisner (2002) named a micro-discovery, that was influenced by Anton’s role as a teacher, the materials they interacted with and their own active role in the atelier.

Therefore, these examples confirms the view of the learning process as the sum of both the teacher and the children’s beliefs, understanding, feelings, interests, imagination and the use of materials in the lesson and influences the learning effects in the atelier (Lenz Taguchi et all, 2010; Frederiksen, 2011; Frederiksen, 2012).
7.2.5. Which learning effects were observed?

In the previous chapter a few examples were discussed and the learning effects that could be derived from the examples. Consequently, the learning effects were influenced by the role of the teacher, the choice in materials and the experiences of the children as theorized by Frederiksen (2011; 2012). In this chapter all the learning effects that were observed during the atelier lessons and how these were influenced will be discussed. The learning effects are based on the categorization of effects theory by Harland et al (2000). These learning effects are defined as the following: “[…] the outcomes of art lessons that pupils and teachers have identified as being associated with any effect on themselves” (Harland et al, 2000, 17). However, not all effects as categorized by Harland et al (2000) were visible in the atelier. Therefore, only the effects that were visible in the atelier will be discussed.

The first learning effect that was observed throughout the atelier lessons was the joy and happiness the children experienced in the atelier. According to Harland et al (2000), this is one of the most commented and immediate effects of the arts. The children were very enthusiastic throughout the atelier, something that already started in the beginning when Anton entered their classroom. They all welcomed him enthusiastically and during the demonstration they participated enthusiastically: which was evident in their smiles, the wondering on their faces, but also their bodies leaning forward to get a better view to see what Anton was doing (observation G, H). This enthusiasm did not waver throughout the lessons. When the children entered the atelier they immediately went to the tables with the different materials, some children even ran. When working on their artworks, many children were chatting happily, smiling and enthusiastically telling each other or Anton or Lia what they were creating (observation G, H). Earlier, Anton described that fun was an important quality of the ateliers and its effect should not be underestimated. He considered fun and enjoyment as a secondary effect of the atelier. (interview G).

The second learning effect which was visible in the atelier of the Wilgenstam focused on what Harland et al (2000) described as the impact on higher-order cognitive skills and competences such as problem-solving skills and experimenting. One of the aims of the atelier was to stimulate the development of an inquiry-based learning attitude and their creativity. Therefore, the main focus of the atelier lessons was on experimentation. This was enabled by Anton’s child-centred teaching approach; he was mostly a facilitator who provided the materials and stimulated the children to find solutions for themselves.
Consequently, he stayed as abstract as possible and offered unfamiliar materials to the children without explanation. The children were unaware of the original purpose of the materials and used it for their own purposes. The challenging materials and Anton’s role pushed the children to experiment with the materials and different techniques. This was already established through the observed examples of the micro-discoveries. Consequently, they developed their problem-solving skills and creativity. This was mostly visible in their artworks: many of them were different and used all kinds of techniques. The materials were used for their own purposes, both practical and decorative. Anton underlined the progress of this learning effect in the atelier: “In the beginning everything was a bit like detached sand, but later on their things got more firmer and more volume. [...] They wanted to try new things. Break things apart and put them together again in a different way” (interview G).

A third learning effect of the atelier lessons was that children started associating with the theme. Therefore, they related their own experiences and ideas to the theme. According to Harland et al (2000) this effect is categorized as art as a form of expression where the children can express their ideas, imagination and experiences. First, this effect was visible in the beginning of the atelier lesson when Anton created a demonstration with water and materials. His aim was to already start the children associating with the concept of floating. The materials that Anton used for the demonstration were meant to make the theme of the atelier more tangible and thus, more easier to relate it to their own experiences. Consequently, throughout the atelier the children were often associating when they renamed materials or explained what their artworks were supposed to be. Concluding, they were able to express themselves in their artwork.

The fourth and last learning effect focuses on personal and social outcomes such as the development of social skills (Harland et al, 2000). Previously, one pattern concerning the behaviour of the children was discussed, namely the many collaboration that were observed in the atelier. As stated earlier this learning effect was influenced by Anton’s role in the atelier where he was only a facilitator and stayed in the background during the lessons. Consequently, he offered challenging materials that were unfamiliar for the children. So, when the children needed help with their artworks or the materials it was easier for them to turn to the other children in their class. Moreover, in their class cooperative learning was
emphasized, so it was possible that some children followed their past experiences with collaborations.

Concluding, several learning effects that corresponded to the theory of Harland et all (2000) were observed in the atelier lessons. The most visible learning effects were joy, experimentation, associating with their own experiences and collaborations. Consequently, the last three learning effects were the result of several patterns of the role of the teacher and choice in materials that were influenced by the role of the teacher, the choice of materials and the experiences of the children as theorized by Frederiksen (2011; 2012). Moreover, the learning effects can be traced back to the aims of the atelier which focussed on offering more freedom in their education, the development of a curious learning attitude and enjoyment. The other aims concerning the confidence of children and transfer-effects could not be established without interviews with the children or tests.
The first sub question focused on the aims of the atelier. Each atelier had different aims and this influenced their role as teacher and choice in materials. The atelier of Punt 5 catered to a special group: the nulgroep. It focussed on play-based learning which supposedly stimulates the learning, develop problem-solving skills and supports the imagination and creativity of children. Several researchers consider play-based learning as one of the most effective method for young children (Thomas et al, 2012; Jachyro & Fusco,
The main objective of Punt 5 was to enhance the Dutch vocabulary of the children. It emphasized experience as a key to language development which corresponded to the theory of Høigård (in Frederiksen, 2011). Lastly, another main objective was to give children confidence to explore and express their own ideas.

The main objectives of the atelier of the Wilgenstam was to offer the children more freedom in their education and to stimulate the development of an inquiry-based learning attitude. These aims corresponded to the principles of the Reggio Emilia approach and focused on a child-centred approach towards arts education. Two other aims, confidence and enjoyment, were also considered important by Anton, but he viewed them as secondary effects of the atelier lessons.

What role does the teacher take in the ateliers and why?

Three patterns concerning Marion’s teaching were visible in the observations. Firstly, Marion was very present throughout the atelier which was mostly visible through asking open-ended questions. This pattern corresponds to the theory of Burton (1980) in order to create a more enriching art experience for the children. The second pattern focused on creating a positive environment for the children through an emphasis on complimenting. The last and third pattern was Marion’s emphasis on body-language which she employed throughout the atelier lessons. Concluding, Marion’s role as teacher could be described as the higher-order cognitive orientation with elements of the student-centred orientation which provided a positive and traditional experience with the arts for the children (Bresler, 1994).

Two patterns concerning Anton’s role in the atelier were discovered. The first pattern focused on staying in the background and let the initiative with the children which underlined the view of a child-centred approach to arts education. The second pattern in Anton’s teaching was the emphasis on evaluation and reflection which stimulated the children to learn from each other. Anton’s role in the atelier could be described as a mix between the student-centred and the higher-order cognitive orientation (Bresler, 1994).

What material was used and why?

Three patterns concerning the choice of materials were observed in Punt 5. Firstly, this atelier focused on traditional art materials for the children to work with, which let them gain a comprehensive experience with the fine arts. The second pattern in the choice of materials was to stimulate the children’s senses which was built on the notion of multi-sensory
learning which believed that children learn better when multiple senses are involved (Rettig and Rettig, 1999; Gorjian et al., 2012). The last pattern concerning the materials was to help visualize the theme for the children which, according to theory, makes it easier for them to understand the concept and stimulates them to associate with their own experiences (Gorjian et al., 2012). Consequently, all three patterns concerning the materials created an enriching and stimulating environment to learn.

The atelier of the Wilgenstam focused on two patterns concerning the materials. The first pattern focused on unfamiliar materials which stimulated the children to experiment and employ the materials for their own purposes which, according to theory, helps the development of problem-solving skills (Dewey 1916; Eisner, 2002). The second pattern focuses on making the theme more tangible for the children. This notion was build on the theory of visualization which makes it easier for them to understand the concept and stimulated them to associate with their own experiences (Gorjian et al., 2012).

All conclusions from the first three sub questions are put into a table to create an overview of all the patterns that were observed in both the ateliers.

**Table. 7.1. Overview of all the patterns of the ateliers**

<table>
<thead>
<tr>
<th></th>
<th>Pun 5</th>
<th>Wilgenstam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aims</strong></td>
<td>- Experience art/artist</td>
<td>- Experimentation</td>
</tr>
<tr>
<td></td>
<td>- Enhance Dutch vocabulary</td>
<td>- Offer more freedom within their education</td>
</tr>
<tr>
<td></td>
<td>- Confidence to explore and express their own ideas</td>
<td>- Stimulate inquiry-based learning</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td>- Focus on non-verbal communication</td>
<td>- Collaborations between children</td>
</tr>
<tr>
<td></td>
<td>- Learning trough experimentation</td>
<td>- Learning trough experimentation</td>
</tr>
<tr>
<td><strong>Teachers</strong></td>
<td>- Very present during atelier lessons</td>
<td>- Stayed in the background during the atelier</td>
</tr>
<tr>
<td></td>
<td>- Complimenting</td>
<td>- Emphasis on reflections</td>
</tr>
<tr>
<td></td>
<td>- Use of body-language</td>
<td>- Predominantly student-centred orientation</td>
</tr>
<tr>
<td></td>
<td><strong>Predominantly higher-order cognitive orientation</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Materials</strong></td>
<td>- Traditional art materials</td>
<td>- Unfamiliar materials</td>
</tr>
<tr>
<td></td>
<td>- Stimulate the senses</td>
<td>- Tangibility and association of the theme</td>
</tr>
<tr>
<td></td>
<td>- Visualization</td>
<td></td>
</tr>
</tbody>
</table>

The patterns and its effects that were discovered in the analysis of the ateliers were the basis of answering the last two sub questions of this thesis. The conclusions of both these sub questions are combined to answer the research question and will not be discussed separately. The sub question that explored the triangle of Frederisen (2011; 2012) through
observed examples of the atelier lessons showed that all three elements of the triangle influenced the learning effects that occurred. Consequently, in the last sub questions, that explored the learning effects of the ateliers, the triangle and both the discovered patterns influenced the learning effects.

How do the role of the teacher and the chosen materials influence the learning effects of the arts education project ateliers in school?
Harland et all (2000) categorized seven learning effects that they defined as “[…] the outcomes of art lessons that pupils and teachers have identified as being associated with any effect on themselves” (Harland et all, 2000, 17). However, in this research there was no possibility to interview the children due to their young age and, in the case of Punt 5, their lack of Dutch communication skills. Therefore, only the learning effects that were visible through the observations will be discussed and represented as the learning effects of the ateliers.

First, the learning effects that were discovered in the atelier of Punt 5 were enjoyment, gaining knowledge about the fine arts and the development of technical skills, experimentation and associating with their own experiences. The learning effects that were discovered in the atelier of the Wilgenstam were enjoyment, experimentation, associating with their own experiences and collaborations. All the learning effects fit the categorizations of the learning effects of Harland et all (2000).

Secondly, all the learning effects, except for the effect of enjoyment which is probably a result of the total of the atelier lessons, are influenced by the patterns that were established in the analysis. Each learning effect and its corresponding patterns will be discussed separately per atelier and be presented in a table to create, yet again, a comprehensive overview. Afterwards, a general conclusion of the research will be presented.

The learning effects of the atelier of Punt 5
The learning effect of gaining knowledge about the fine arts and the development of technical skills was influenced by the patterns of non-verbal language which Marion employed throughout the demonstration to explain both verbally and non-verbally the techniques and her emphasis on using technical terms throughout the ateliers. The choice of incorporating traditional art materials and visual imagery of art created for the children an
experience with the arts/being an artist. Therefore, these patterns contributed to the learning effect of gaining knowledge about the fine arts and the development of technical skills.

The second learning effect, experimentation, was influenced by Marion’s role as guide who offered the children the freedom to explore the materials she provided, by demonstrating the techniques of the materials. The materials needed to stimulate the senses of the children and invited to experiment with. To experiment with the materials a child could have been Consequently, when the experiment was praised it has a positive impact on the experience of the child.

The third learning effect, associating with their own experiences, was influenced by Marion’s role as guide and her technique to ask open-ended questions which let the agency with the children. The pattern of materials focused on visualization which made the theme more tangible, and thus-, easier for the children to connect them to their own experiences.

Learning effects of the atelier the Wilgenstam

The first learning effect of experimentation and the development of problem-solving skills, was influenced by Anton’s role as facilitator where he stayed in the background of the atelier. All the materials were unfamiliar to the children and they did not know the original usage of the material, therefore they could use the materials for their own purposes which positively influenced their experimentation- and problem-solving skills.

The second learning effect, associating with their own experiences. This was influenced by the demonstration that Anton provided and the materials that he used for this demonstration and the goal to make the theme more tangible. Consequently, through visualization and making the theme concrete it stimulates the association with their own experiences.

The last learning effect, collaborations, was influenced by Anton’s role as facilitator where he stayed into the background, offered unfamiliar materials which pushed the children to collaborate with each other if they needed help. All the patterns that influenced the learning effects were placed in a table below to create an overview.
7.2. Overview of the influences on the learning effects

<table>
<thead>
<tr>
<th>Learning effects</th>
<th>Role teacher</th>
<th>Choice materials</th>
<th>Experiences children</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Punt 5</strong></td>
<td>Joy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge art/technical skills</td>
<td>Demonstration</td>
<td>Traditional art materials</td>
<td>experience with art/being artist</td>
</tr>
<tr>
<td>Experimentation</td>
<td>Encouragement Praise</td>
<td>Stimulating the senses</td>
<td>Interaction with materials</td>
</tr>
<tr>
<td>Association</td>
<td>Open-ended questions</td>
<td>visualization</td>
<td>Relating to own ideas/experiences</td>
</tr>
<tr>
<td><strong>Wilgenstam</strong></td>
<td>Joy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimentation</td>
<td>Background</td>
<td>Unfamiliar materials</td>
<td>Use for own purposes</td>
</tr>
<tr>
<td>Associating</td>
<td>demonstration</td>
<td>Tangibility</td>
<td>Relate to own ideas/experiences</td>
</tr>
<tr>
<td>Collaborations</td>
<td>Background</td>
<td>Unfamiliar materials</td>
<td>Need help with the materials</td>
</tr>
</tbody>
</table>

Concluding, throughout the analysis several patterns concerning the role of the teacher and the choice of materials were discovered. The combination of these patterns impacted the children’s experiences and influenced the learning effects that took place in both the ateliers. Consequently, these results underline the theory of Frederiksen (2011; 2012) who advocates that the learning process is influenced by the role of the teacher, the choice in materials and the beliefs, ideas and experiences of the children.

It is important to note that the results that can be concluded from this thesis are embedded in the context of the ateliers in school, and thus-, should be understood within this context. Even tough, the results pointed towards several patterns that influenced the learning effects of the ateliers it is not sure if these patterns could be recreated within a different context. Therefore, these results should not be viewed as a clear-cut plan to recreate the learning effects that occurred in the ateliers. Moreover, both ateliers focused on fine arts, and thus-, already incorporated and emphasized certain materials.
However, a general conclusion can be drawn from the analysis namely that the learning effects did not randomly occur, but were the results from the choices the ateliers made concerning their aims, role of the teacher and the choice in materials which corresponded to several theories. This was exemplified through the different learning effects that occurred in both the ateliers where the approaches of both the ateliers differed from each other.

Lastly, some limitations and recommendations for further research will be discussed. Firstly, the scope of the research was limited; only two ateliers were involved in the research. Both ateliers focused on the same subject, the fine arts, a field in arts education which already emphasized materials. It would have been interesting to explore how other fields in arts education incorporate materials and how this influences the learning effects.

However, due to time limitations no more ateliers could be included in the research. Secondly, as mentioned earlier in the methodology section, the data collection was uneven. Only two lessons at the atelier of the Wilgenstam could be observed in comparison to the seven at the atelier of Punt 5. Even tough, the data offered a comprehensive overview of the atelier it would have benefitted the study if more data would be collected. Thirdly, this research started with a different research question, also stated earlier in the methodology section. The observations and interviews were designed to this previous aim of the study. Therefore, there were parts of the data that were not relevant for this research and initially no emphasis was placed on the materials and their place in the learning process. Lastly, the participants of this research, the children, were rather young. Therefore, this thesis emphasized early childhood (arts) education. Even though, the teachers of the atelier provided their insight on how they observed how the children learned, it would have benefitted the research if the children could have been interviewed on what they experienced as learning effects of the ateliers.

This master thesis will end with some recommendations for further research. Throughout this thesis the importance of the materials was stressed by the discussed theories, but was also concluded by the results of this analysis. Lately, the materials are being incorporated in theories of the learning process, as was discussed with the theory of Frederiksen (2011; 2012). However, not much practical research has been done surrendering this subject and the influence of materials in other fields of arts education then the fine arts.
References


### Appendix A: Observation Schemes

#### Observation scheme children

Datum:
Tijd:
Atelier:
Observatie nr:
Opmerkingen:
Doel:

<table>
<thead>
<tr>
<th>Thema/Taak</th>
<th>Wat doen de kinderen?</th>
<th>Wat zeggen de kinderen?</th>
<th>Hoe reageren de kinderen op de instructie?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Observation scheme teachers**

Datum:  
Tijd:  
Atelier:  
Observatie nr:  
Opmerkingen:  
Doel:  

<table>
<thead>
<tr>
<th>Thema/Taak</th>
<th>Hoe wordt de opdracht uitgelegd?</th>
<th>Hoe worden de kinderen door de kunstenaar of docent bijgestaan tijdens de opdracht?</th>
<th>Hoe wordt de opdracht afgesloten?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
Appendix B: Interview guides

Interview teachers atelier #1

Probing tips: vraag om voorbeelden, ervaringen, persoonlijke visies, hoe ze iets aanpakken.

1. Kun je me iets over je achtergrond vertellen?

2. Hoe ben je terecht gekomen bij dit Atelier?

3. Wat is jouw rol in het Atelier?

4. Waarom is er gekozen voor deze groep?

5. Wat is het doel van dit Atelier?
   a. (wat wordt er geprobeerd te leren?)

6. Wat vindt jij persoonlijk belangrijk dat de kinderen leren tijdens deze lessen?

7. En hoe probeer je dit te bewerkstelligen?

8. Hoe probeer je vragen of bepaalde vaardigheden die vanuit de school komen te verwerken in de Ateliers?

9. Als je wil dat de kinderen iets specifieks leren hoe ga je dan te werk?
   a. Probes: verwerken in thema, nadruk op te leggen?

10. Hoe leidt je een nieuwe les in?

11. Hoe doe je de kinderen tijdens de les te begeleiden?

12. Hoe zou jij zelf je begeleidingsstrategie omschrijven?

13. Hoe probeer je de kinderen te stimuleren om iets op een bepaalde manier aan te pakken?

14. Hoe sluit je een les af?
   a. Probes; Feedback, reflectie. Voorbeelden.

15. Is er nog iets dat je graag wilt delen, maar nog zelf niet aan bod is gekomen?
Interview guide regular teachers Punt 5
Email

1. Wat is uw rol tijdens de kunstlessen bij Punt 5?

2. Waarom is er voor gekozen om deze jonge groep kinderen deel te laten nemen aan de kunstlessen?

3. In welk opzicht zijn de kunstlessen bij Punt 5 anders dan de kunstlessen bij jullie op de peuterspeelzaal?

4. Hoe sluiten de kunstlessen van Punt 5 aan bij een reguliere dag op de peuterspeelzaal? Bv. Lopen de thema’s door in jullie lessen?

5. Hebben jullie bepaalde technieken uit de lessen van punt 5 overgenomen en deze geprobeerd te integreren in jullie eigen lessen? Bv. Technieken die Marion gebruikt, maar ook technieken die de kinderen hebben geleerd om bijvoorbeeld iets te schilderen of aan elkaar vast te maken.

6. Hebben jullie bepaalde elementen uit de lessen van punt 5 overgenomen en deze geprobeerd te integreren in jullie eigen lessen?

7. Hebben jullie bepaalde materialen uit de lessen van punt 5 overgenomen en deze geprobeerd te integreren in jullie eigen lessen?

8. Welke technieken zagen jullie de kinderen (onbewust) gebruiken om te leren? Bv. Tijdens mijn observaties viel op dat de kinderen veel woorden herhaalden die Marion opnoemden.

9. Wat voor een ontwikkeling hebben de kinderen tijdens de lessen van punt 5 doorgemaakt?

10. Wat voor verschillen hebben jullie opgemerkt aan de kinderen aan het begin van de lessenserie tot aan het einde?
Interview guide regular teacher Wilgenstam

1. Wat is jouw rol in het atelier?

2. Hoe ondersteun jij Anton tijdens de lessen?

3. Wat is het doel van het atelier, wat proberen jullie de kinderen te leren?

4. Hoe is het atelier geïntegreerd in de andere lessen?/ hoe spelen jullie in op de lessen van het atelier?

5. Waarom is er voor deze groep gekozen?

6. Waarom is er voor het thema de vier elementen gekozen?

7. Binnen het thema gaan jullie vrij abstract te werk, hoe reageren de kinderen hierop? Probes: hoe reageren de kinderen op de lessen?

8. Hoe zie jij de kinderen leren tijdens het atelier?
   + voorbeeld

9. Kun je me iets over de ontwikkeling van de kinderen binnen het atelier vertellen? Probes: verschil eerste lessen tot nu?

10. Waarom wordt er gekozen om het opruimen tijdens het atelier te doen?

11. Waarom wordt er voor gekozen om Anton eerst naar de klas te laten komen in plaats van in het Atelier te beginnen?

12. Nu het atelier is afgelopen, hoe proberen jullie nu verder te bouwen op het atelier?
Interview guide Marion Punt 5 #2

Algemeen over alle lessen
1. Waarom heb je voor deze structuur van de lessen gekozen? (inspiratiemoment/voorlezen, demonstratie, opdracht uitvoeren, afsluiting lezen + stempelen)

2. Wat is de achterliggende gedachte van je lessenserie?

3. Hoe passen de verschillende thema’s die in de lessen centraal staan daarin?

4. Je legt de lat vrij hoog bij de lessen voor zulke jonge kinderen, waarom? (vb. plaatjes van schilderijen van Margritte, Mona Lisa, maar ook thema van het inwendige lichaam).

5. Hoe probeer je deze moeilijke onderwerpen te vertalen naar het niveau van de peuters?

6. Hoe reageren die kinderen hierop, het feit dat je ze confronteert met lastige thema’s en onderwerpen? (probes, positieve uitwerking, prikkelen)

7. Hoe probeer je de kwaliteit van je lessen hoog te houden ondanks de jonge leeftijd van de kinderen?

8. Elke les staat er een woord centraal. Hoe probeer je dit woord aan de kinderen te leren? (Probes: middelen)

9. Hoe probeer je reflectiemomentjes in te bouwen ondanks de jonge leeftijd?

10. Hoe zet jij je lichaam in om de kinderen te helpen met leren? (Probes: stem, lichaamshouding, dichtbij komen)

11. Hoe bouw je voort op eerdere lessen?

12. Hoe reageren de kinderen daarop?

13. Uit de observaties komt naar voren dat er toch wat sturing van sommige leidsters zichtbaar is, hoe ga je daarmee om? (bv. Jij moedigt kind aan om met de hand te stempelen, terwijl een leidster dit juist afraadt).

14. Hoe denk je dat de kinderen deze sturing ervaren? (geen effect, remmend, positief)

14. Wat zijn denk je de verschillen tussen de kunstlessen hier bij Punt 5 en in de peuterspeelzaal?
Specifiek over de kinderen
15. Wat voor een ontwikkeling hebben de kinderen doorgemaakt als je kijkt naar het begin van je lessenserie tot nu? (probes: voorbeelden, hoe zie of merk je dat?)

16. Je vindt zelfvertrouwen en een positief zelfbeeld bij kinderen belangrijk. Hoe probeer je hieraan bij te dragen in de lessen?

17. Je probeert het assertief en associatief denken van kinderen te stimuleren tijdens de lessen. Hoe doe je dit?

18. Soms gaat een kind toch iets doen dan de opdracht. Hoe probeer je een kind dan terug te leiden naar de opdracht? (bv. Omtrek maken, kinderen gaan kleuren)

19. Probeer je tijdens de lessen het onderling contact tussen de kinderen te stimuleren of beter dat ze individueel bezig zijn?

20. Hoe probeer je contact te krijgen met de kinderen ondanks dat ze moeite hebben met de Nederlandse taal?


Per les: lichaam uitwendig, omtrek
22. Waarom heb je voor dit onderwerp/thema gekozen?

23. Wat hoop je specifiek tijdens deze les de kinderen te leren? (is dit gelukt? Hoe zie je dat dit gelukt is?)

24. In deze les werken de kinderen samen om een omtrek te maken, waarom?

Lichaam inwendig
25. Waarom gekozen voor dit onderwerp/thema?

26. Wat hoop je de kinderen specifiek tijdens deze les te leren?

27. Waarom heb je er voor gekozen om deze les voort te bouwen op de vorige les?

28. Waarom heb je er voor gekozen om al eerder gebruikte materialen en technieken te gebruiken voor deze les?

Extra les: kleuren
29. Waarom gekozen voor dit onderwerp?

30. Wat hoop je de kinderen specifiek te leren tijdens deze les?
Interview guide Anton #2

Lessen algemeen
1. Wat is de achterliggende gedachte van de lessenserie?

2. In het vorige interview zei je dat je niet echt een vast patroon had, waarom?

3. Hoe komt het thema, de vier elementen, steeds terug in de lessenserie?

4. Hoe vertaal je het thema naar het niveau van de jonge kinderen?

4. Ik heb begrepen dat de ateliers samenhangt met filosofie, hoe worden deze op elkaar ingespeeld?
Probes: zelfde thema, zelfde doel

5. Hoe bouw je de lessen voort op de gewone lessen in het klaslokaal bij Lia?
Bv. Lia noemt voortborduren op technieken die ze in al bij haar hadden geleerd.

6. Tijdens het atelier wil je de onderzoekende houding van de kinderen stimuleren, hoe pak je dit aan?
Probes: materiaal belangrijk, maar ook andere dingen?

7. In het vorige interview noemde je dat je het belangrijk vindt dat de kinderen zelf een eigen onderzoeksvraag formuleren, kun je hier meer informatie over geven?
+ voorbeeld

7. Waarom maak je gebruik van demonstraties?
Bv. Het zinken van objecten in het water etc. bv. Ter inspiratie?

8. Maak je hier altijd gebruik van?

9. In het vorige Atelier bij punt 5 stond het positieve zelfbeeld van de kinderen heel erg centraal, hoe wordt daar hier op ingezet?

9. In het vorige interview vertelde je op dat er voor andere groepen een andere benadering is dan voor deze groep 1/2? Kun je iets meer over dit verschil in benadering vertellen?

10. Waarom is er voor gekozen om de kinderen zelf een expositie op te laten zetten?

11. Waarom is er voor gekozen om de ouders uit te nodigen tijdens deze expositie?
**Kinderen**

10. Hoe ga je met zo’n grote groep kinderen om in je atelier?
Probes: pas je dingen aan, doe je dingen anders etc.

11. Hoe reageerden de kinderen op de abstracte opdrachten?
Probes: aangezien dit heel anders is dan wat ze normaal doen, concrete opdrachten.

12. Hoe zag jij de kinderen reageren op de materialen die je beschikbaar stelde?
Probes: prikkelend materiaal, kende ze nog niet. Idee wat ze ermee konden doen? + voorbeeld

13. Lia noemde dat in haar lessen samenwerken heel belangrijk was, wordt dit ook gestimuleerd tijdens het atelier?

14. Wat mij opviel is dat de kinderen vooral naar jou laat toekomen, waarom?

15. Je noemde al eerder dat je het belangrijk vindt dat de kinderen terugkijken op wat ze hebben gedaan, maar hoe bouw je deze reflectiemomentjes in op zo’n jonge leeftijd?

16. Heb je ook het idee dat ze het meenemen die reflectiemomenten?
Probes: later toepassen

15. Wat voor een ontwikkeling hebben de kinderen doorgemaakt als je kijkt naar het begin van je lessenserie tot nu?
(probes: voorbeelden, hoe zie of merk je dat?)

16. Hoe zie jij de kinderen leren tijdens de lessen?
## Appendix C: Coding scheme

<table>
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<tr>
<th>Examples of open codes</th>
<th>Description</th>
<th>Axial coding (categories)</th>
<th>Selective coding (major themes used in analysis)</th>
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<td>Children pursue their own ideas.</td>
<td>inquiry based learning</td>
<td>Aims</td>
</tr>
<tr>
<td>Associating</td>
<td>Children associated with the theme</td>
<td>Develop associated thinking</td>
<td>Aims</td>
</tr>
<tr>
<td>Own solutions</td>
<td>Children came with their own solutions</td>
<td>Developing problem solving skills</td>
<td>Aims</td>
</tr>
<tr>
<td>Pointing</td>
<td>Children pointed to artworks/materials</td>
<td>Non-verbal communication</td>
<td>Children</td>
</tr>
<tr>
<td>Smiling</td>
<td>Children smiled</td>
<td>Non-verbal communication</td>
<td>Children</td>
</tr>
<tr>
<td>Singing</td>
<td>Children sang</td>
<td>Positive feelings</td>
<td>children</td>
</tr>
<tr>
<td>Babbling</td>
<td>Children babbled</td>
<td>Verbal communication</td>
<td>children</td>
</tr>
<tr>
<td>Talking artwork</td>
<td>Children discussed their artworks</td>
<td>Reflection</td>
<td>Children</td>
</tr>
<tr>
<td>Talking child</td>
<td>Children interacted with each other</td>
<td>Social interaction</td>
<td>Children</td>
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<tr>
<td>Demonstrating</td>
<td>Teacher demonstrates materials</td>
<td>Demonstration</td>
<td>Teacher</td>
</tr>
<tr>
<td>Complimenting</td>
<td>Teacher compliments children</td>
<td>Compliments</td>
<td>Teacher</td>
</tr>
<tr>
<td>Verbal explaining</td>
<td>Explain something verbally</td>
<td>Verbal explanation</td>
<td>Teacher</td>
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<tr>
<td>Non-verbal demonstration</td>
<td>Teacher demonstrates something non-verbally</td>
<td>Demonstration</td>
<td>Teacher</td>
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<tr>
<td>Asking questions</td>
<td>Teachers asks questions</td>
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<td>Teacher</td>
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<td>Instruction materials</td>
<td>Children are instructed how to use materials</td>
<td>Material instruction</td>
<td>Materials</td>
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<td>Visual imagery</td>
<td>Images to explain the theme</td>
<td>Visualization</td>
<td>Materials</td>
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<tr>
<td>Touching materials</td>
<td>Children touch materials</td>
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<tr>
<td>Discussing materials</td>
<td>Materials are discussed</td>
<td>Discussion materials</td>
<td>Materials</td>
</tr>
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