Dissertation

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The positive effects of the synergy between musician and classroom teacher on young children’s free musical play

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Abstract

This dissertation reports on a study which investigated the free musical play of four- and five-year-olds in a Primary School in The Netherlands, and the effects that interventions by a professional musician and classroom teacher might have on such play. It argues that many attempts by professionals, such as musicians, to offer arts education in Primary Schools, are in general ineffective since they lack the cooperation with the host schools, and suggests that, if doing so, schools’ arts education could benefit. The study adopted a mixed methods approach, combining a quantitative and qualitative data collection. Group interventions, executed by the musician, and subsequently the classroom teacher in cooperation with the musician, led to observations of children’s free musical play. Children’s play was videotaped, observed and analysed through systematic observations. In order to gain additional data on areas of agreement and conflict, participants were interviewed on their rationale and experiences. Findings showed that the effects of a solo intervention by the musician on children’s free musical play were negligible, whereas the collaborate intervention showed significant effects - manifesting themselves by an increase of more socially interactive forms of play and expanded musical behaviours. This collaborative intervention proved to be succesful, since parties could build upon each others’ strenghts. Therefore, the main conclusion drawn from this study, is that a substantive collaboration between art professionals and host schools is crucial for a succesful collective educational offer, which can be beneficial to children’s free musical play.

Keywords: free musical play, cooperation classroom teachers- artists in schools

Chapter 1 – Introduction
1.1. Background

1.1.1. Music education in Dutch Primary schools

In the Netherlands, music education is compulsory. A set of core objectives, comparable to the English National Curriculum, defines the content of the education offered in Primary schools. These core objectives are binding, but defined in such a broad way that it enables schools to interpret them according to their own view on education. Music education belongs to the broader educational field of ‘Art Education’. The latest set of Core Objectives for the educational field of Art Education dates back to 2006, and is formulated as followed: (SLO 2006)

*54 The pupils learn to use images, language, music, games and movement to express their feelings and experiences and to communicate with.*

*55 The pupils learn to reflect upon their own work and the work of others.*

*56 The pupils acquire knowledge about and learn to appreciate aspects of cultural heritage.*

In Primary schools, in order to achieve these objectives, two parties are encountered: classroom teachers, educated at a teacher training college, and professional musicians, educated at a conservatoire. Both contribute to the execution of the core objectives (van Schilt-Mol, 2011). From research, however, it becomes clear that, in the realization of these objectives, parties tend to work more alongside each other, than that they cooperate (van Schilt-Mol, 2011). The following text, found on a cultural intitution’s website, ‘Cool’, near Amsterdam, demonstrates such mis-match clearly:

‘Cool develops educational projects for various age groups, directed at primary and secondary school. Cool’s mission is to establish cooperation and exchange between amateurs and professionals, between disciplines and (sub) cultures. Our section: ‘Cool for School’ provides for courses and projects for schools, consistant with Cool’s mission and vision. Therefore, Cool develops teaching materials, methods and projects, and carries out these projects independently’.

(Website Cool Kunst en Cultuur, 2012)
This promotional text reveals that Cool works in a one-way direction, guided by its own ‘mission and vision’. By doing so, however, it ignores its customer’s (i.e. schools) mission, vision and needs. More than 75 % of Dutch primary schools, to a larger or lesser extent, appear to cooperate with non-resident partners regarding their music education. These partners mostly concern local music schools, institutions for cultural education or professional musicians from orchestras or brassbands (Van Schilt-Mol, 2011).

The Dutch government considers such educational activities by cultural institutions to be a core task, as a recent policy document for orchestras states:

‘There is a great need for cultural activities in the field, especially as an investment in the audience of the future. Participation and education are core tasks of the orchestras and they indeed act on this, one more than the other’

The relation of these tasks to schools becomes apparent in the government report ‘More than quality: a new view on Cultural Policy’, where is stated:

‘The inspection for Education will carry out thematical research on the level of cultural education and its place in the curricula of schools. Furthermore, all institutions that qualify for government funding must describe in their application how their activities will reach children and adolescents’

The foregoing makes it clear that- due to government policies-, cultural institutions are driven towards schools, whereas schools will be assessed on their cultural education. This creates a mutual dependency. Therefore it is likely that an increasing number of musicians will be found to be working with children in schools.

A closer inspection of this planned governmental research however, makes it clear that this assessment will be of a quantitative nature; due to the fact that it will be looking into


the scope of the institutions’ projects and the number of children reached by it. However, since no quality requirements are to be met, institutions are left behind with the question: what defines good participation and education? In other words:

What can be the potential of professional musicians in schools?

1.1.2. The classroom teacher and music education

The foregoing subsection makes clear that Dutch schools tend to outsource their music education to professionals. But why don’t classroom teachers teach music themselves?

In Dutch primary schools, indeed, music education ought to be given by classroom teachers. Nevertheless, recent research shows that the majority of primary school teachers do not, or very little, teach music (van Schilt-Mol, 2011). Teachers are expected to have acquired all skills, necessary for this task within their vocational training. Despite this training, however, as Schilt-Mol’s research points out, teachers appear to feel insecure and inadequate to teach music (Schilt-Mol, 2011, McCullough, 2005). This sentiment might be due to students’ own, initial (relatively low-) level of musical development, but another important factor seems to be the lack of time for music in teacher training school’s curricula. As it happens, the last decade, a strong emphasis on language and mathematics on school’s curricula was placed by the Ministry of Education; on primary schools’-, and consequently on teacher training colleges’ curricula. These subjects consume time, unfortunately at art subjects’ expense (Bothof, 2009). Because of this time deficit, all teacher training curricula are able to offer, are the training of some musical skills such as singing, and some pedagogy on teaching children to sing, dance, or play on easy accessible musical instruments. In addition, groups are relatively large (Bothof, 2009). Consequently, the focus of these curricula lies on (mainly) teacher-led, whole group based musical activities – identical to the way students are taught themselves. Curricula offer no opportunity for other forms of music pedagogy, nor different views on music education. Other, international research in this area seems to confirm that teachers offer mainly teacher-led musical activities (Andress, 1998; Morin, 2001), and that music is often not integrated into a general education classroom (Bresler, 1993; Stake, Bresler, & Mabry, 1991). It also appears that abovementioned barriers, such as teachers’ lack of knowledge and resources have been noted as deterrents to music integration (Bresler, 1993). So, in summarize: classroom
teachers don't teach music, because they feel insecure and incompetent, which might be— to a certain extent— due to their preliminary vocational training, which did not meet their needs.

To my opinion, there are two possible options to address this issue:

a) Enrich music education for children,
b) Reinforce teachers’ musical confidence, by making use of their transferable skills

Enrich music education for children

For this first option, ‘children’ will be narrowed down to children in the first two grades of primary school; 4 and 5 year olds. As research has shown, the focus of schools (primary- and vocational-) music curricula, lies mainly on teacher-led, collaborate activities. Such activities are in itself efficient and suitable, but do not meet every need of this age group, or do justice to the musical development of children this age. Young children, namely, learn largely by means of play – play in general, and play concerning music. Recent research on children’s musical play behaviours gives a new understanding of the intuitive ways in which children make music, and how they learn from this musical play. One of such forms is ‘free musical play’: play, initiated by the child itself, which takes place in a musical environment that is intended for learning, prepared by the teacher. In this free musical play, an important role is assigned to the classroom teacher: not only does he prepare this musical environment, he also observes children’s play and assists and intervenes where necessary/appropriate. Despite tangible benefits for children’s musical development, free musical play, however, seems to be seldom part of curricula for 3-6 year-olds. Teachers appear to be unaccustomed with this type of music education, and seem to feel uncomfortable when they have no direct influence on children’s musical learning process (Smith & Montgomery, 2005).

These issues notwithstanding, free musical play could well form a basis for educational activities that include children’s self-motivated learning styles, such as play. It is my belief that such forms of pedagogy deserve an equal place in a vocational training directed at young children. Or, as Littleton puts it:

‘Teachers and researchers ought to expand their knowledge and understanding of free musical play of young children, (...) not that children’s play with music should replace music instruction, the music teacher, or the curriculum (...), but that we should connect developmentally appropriate, child-directed music-play opportunities with
developmentally appropriate, teacher directed music instruction opportunities in a comprehensive model of young children’s music learning’ (Littleton, 2008:13/14).

Reinforce teachers’ confidence

Teacher-led, collaborate musical activities, depend highly on teachers’ musical skills. An additional benefit of free musical play is that it calls on many skills teachers already possess, such as observing and scaffolding. This means the issue of ‘the teacher being musical or not’, is less important, which may have a positive effect on teachers’ musical confidence.

1.2. Research focus (context of the research)

In summary, the foregoing section discussed three issues, being:

- the performance of professional musicians in primary schools
- play as a means of musical development of young children
- reinforcement of the classroom teachers’ musical confidence.

In this research, these three issues are combined, in order to investigate to what extent they can be of use to each other, and possibly reinforce one another. So, what it aims to find out, is:

*How can a professional musician operate in a primary school, in such a way that it benefits the school’s curriculum, the development of young children’s musical play, as well as the classroom teacher’s musical confidence.*

The figure below shows how these issues interrelate:

![fig. 1: Issues relating to each other](image)
1.3. Summary of the thesis

This section briefly presents the key points of each chapter in order to give a complete view of the structure of the dissertation.

In Chapter 2 – Literature Review, the structure and legal status of Dutch music education in Primary schools and vocational training is described. Consequently, some of the main aspects of the literature concerning children’s (musical-) play and musicians in schools are presented, reviewed and discussed. Moreover, this chapter suggests some ways in which teachers can facilitate and support children’s musical play. This chapter concludes with the formulation of the research questions that constitute this research.

Chapter 3 – Research Methodology, is related to the methodological concerns of this study. A brief description is given of the two fundamental paradigms on which a mixed method approach to research is based, as well as how such method contributes to educational research. Then, the reasons for choosing mixed methods as the basic research method and the data gathering tools of this investigation are explained. Further methodological issues, such as the design of the observation schedule, the followed procedure, the sampling, the validity and the ethical considerations of the study, are presented and discussed.

In Chapter 4 – Reporting, Analysis and discussion of the quantitative data, the data, collected by the systematic observations are reported, analyzed and discussed.

Chapter 5 – Reporting, Analysis and discussion of the qualitative data, will report, analyze and discuss data collected by the interviews with the musician and classroom teacher. Finally, it will answer the initial research questions and discuss meaningful interrelations between the findings resulting from this piece of research and those of the literature review.

Chapter 6 – Conclusions, will summarize the thesis and outline the major results of the study. It also refers to some main implications for further research.
Chapter 2 - Literature review

This chapter presents and discusses the main literature related to the Dutch Educational system, the role of play in a young child's development, musical play and the role of the teacher within. Specifically, within the context of this research, the objectives of this literature review are to:

- identify and set out the educational context for this study
- explore appropriate theories on the development of the young child and the role of play
- evaluate critically models and frameworks relevant to facilitating musical play and the teacher's role
- identify appropriate indicators for children's musical play, as a basis for future observations
- outline possible indicators of success concerning a collaboration between art professionals and general teachers in (primary) education

Therefore, this literature review adheres to the following structure. First, the legal aspects of music education will be set down followed by an evaluation of literature relating to play as a means of learning. Following this, there will be a section on musical play and a further section on musicians in school. The section will close with a summary of the conclusions and a statement of the research questions.

2.1. Legal aspects of music education

In order to create an image of the background and overall setting for this research, this section will briefly outline the Dutch educational system and the place of music education within it. The section will also explore the background of the teachers working there.
In the Netherlands, by the age of four, children are obliged to attend primary school. Primary education in the Netherlands consists of both Kindergarten and primary school. Since 1985, these two have been integrated into a new type of primary or basic education, known as the 'Basisschool'. As such, primary education covers a period of eight years for children from four up to twelve years old. In terms of the primary school, a set of core objectives, comparable to the English National Curriculum, defines the content. These core objectives are compulsory, but are defined in such a broad way that it enables schools to interpret them according to their own educational view. Music education is not represented in specific core objectives, but belongs to the broader educational field of ‘Art education’, sharing its place with other art subjects such as dance, drama and visual arts.

The current set of Core Objectives for Art Education date back to 2006 and are formulated as followed: (SLO, 2006)

54 The pupils learn to use images, language, music, games and movement to express their feelings and experiences and to communicate with.

55 The pupils learn to reflect upon their own work and the work of others.

56 The pupils acquire knowledge about and learn to appreciate aspects of cultural heritage.

Each field of education is introduced by a preamble that places the core objectives in a broader perspective. From experience however, the broad way in which these objectives are formulated, appears to be regarded as indistinct, leaving schools behind with uncertainty on how to build a curriculum on them.

By law, general teachers in Primary Education are expected to teach all subjects, with the exception of physical education to children from 8 years and up. The foundation for this role is established in their vocational training. The content of this vocational training is established in several guiding acts. A principal guiding act is that of a set of general competencies for the Primary School teacher, the so-called ‘SBL-Competencies’, to which all Dutch Initial Teacher Training colleges are bound to teach. These competencies, commissioned by the Ministry of Education, are established by the faculty itself, and describe the knowledge, attitudes and skills necessary for a general teacher in order to practice in the profession. These however, subscribe no subject
related pedagogy, but more general pedagogical skills and knowledge, and therefore give little or no precise direction to music education for upcoming teachers. Another guiding act that, unlike the former, does give direction to a musical pedagogical curriculum, is that of the Kennisbasis ('Base of Knowledge'), which recently came into effect (Meijerink, 2012). This act, intended for the embedding of knowledge in teachers’ vocational training, is fairly precise on what general teachers have to know about teaching music to children. In the light of this research topic, two of the described skills could be of interest, namely:

3.1. **Within his music education, the teacher adopts various ways to orientate, supervise and evaluate with children, taking individual differences between children into account**

3.2. **The teacher knows how to link childrens’ responses to music to musical aspects in the curriculum, anticipating the different learning needs of children** (Meijerink, 2012).

Besides general teachers teaching music however, in primary schools, specialized music teachers are can also be found. Such qualified music teachers hold a conservatoire degree. In Dutch conservatoires, an instrumental degree for such as flute or the piano can be obtained, but a study ‘school music’ is also offered, leading to an educational degree for Primary-, Secondary- and Higher Professional Education. In Primary Schools however, such music teachers are not very common, as schools have to hire them in addition to their regular staff. Instrumental music teachers are (in general) not trained to teach large groups in schools.

So to conclude, in The Netherlands, core objectives are prescribed for the content of the offered education in Primary School, as the SBL competences and the Kennisbasis give direction to the vocational training of the general teacher. None of these however, are particularly descriptive concerning music education. Specialized music teachers do exist, but appear to be rare in Primary Schools.

2.2. **Play as a means of learning**
It is usual for most children to play – they play with dolls, cars, or musical instruments. When asked for their reason to play, they will probably respond with something like: ‘just because I like it’. Nonetheless, ever since the time of Plato’s thoughts on creativity and play, it has become a generally accepted fact that young children learn largely by means of play (Littleton, 1998). Especially this last century, play has held a strong position within early childhood education. Inspired by pioneers of early education such as Froebel (1782 - 1852) and Montessori (1870 - 1952), the idea of a natural, active, playing child has been placed firmly at the centre of the early childhood curriculum. Through time, ‘play’ has been characterized in various ways: as a free, pleasurable and voluntary activity, one without a specific meaning, being unproductive, spontaneous, aimless and amusing. Important aspects of play include freedom of action; the apparent aimlessness of one’s actions and making up rules for ones play. Moreover, the child is initiator of the activity of playing and determines its course (Smith & Montgomery, 2005; Vygotsky, 1933; Janssen-Vos, 2004; Kohnstamm, 1993).

Accepting the view that young children can develop through play, this section will look into various views on development through play, in order to learn more on musical play later on. As the development of play is closely linked to the child’s overall development, it will include an overview of this area as well.

2.2.1. Cognitive development by means of play

Cognitive skills develop from initial sensorial perceptions as a baby, to the ability of speech, and (by that) the ability of thinking by approximately the age of two. This development can also contribute to an improvement in memory and an increase in the span of attention. The ability of thought enables symbolic representation, i.e. the cognitive skill by which some entity comes to represent something else (Feldman, 1997) (e.g.: a stick becomes a broom). Piaget (1969) devised a theory for a cognitive development. In his ‘Developmental Stage Theory’, Piaget distinguishes 4 stages in the cognitive development of the child, starting at birth with the sensorimotor stage (0-2 years old) In this stage the child experiences the world entirely through its senses and movement. Furthermore, children are extremely self-centered as they cannot perceive the world from other viewpoints than their own. In the preoperational stage (2- 7 years
old) so-called ‘magical thinking’ dominates, which means that children believe their personal thoughts to have a direct effect on the rest of the world. Partly because of this magical thinking, children do not yet possess the ability to think logically, and cannot conserve. In this stage, children begin with a high level of egocentricity, but this diminishes with aging. Between the ages of seven and eleven years of age, children reach the concrete operational stage, in which they commence to think logically, albeit still very concrete; e.g. they need visual aids to support their thinking. Finally, from twelve years and up, children begin to reach the formal operational stage, in which they develop abstract thinking and are able to conserve and understand the concept of reversibility. (Piaget, 1969, in: Brouwers, 2009)

Concerning play, to Piaget the children’s development in play is interdependent of its cognitive development. Subsequently, in continuation of this Developmental Stage Theory of cognitive development, Piaget developed a taxonomy of play, corresponding with the above-mentioned developmental stages. In this taxonomy of play, Piaget sketches the broad outlines of the evolution of children’s play in the first seven years of their lives, by identifying three successive systems: practice play, symbolic play and ‘games with rules’ (Piaget, 1951, as cited in: Scales, Almy, Nicolopolou, Ervin-Tripp, 1991:130).

Within the sensorimotor stage, practice play is dominant, as it includes sensory play (purposive combinations of actions) and manipulations (play involving moving objects to produce reactions). Eventually, this practice play transforms into constructions (Scales et al., 1991:130). In the preoperational stage, with the onset of representation and language, symbolic play appears (symbolic representation). Here, the child engages in ‘pretend play’ in which it uses language for simple dialogues and substitute objects for play (e.g. a block stands for a car). This symbolic play eventually develops in sequential combinations of actions, such as the child constructing a whole scene in make-believe (Scales et al, 1991:131). In this phase no rules are developed, the child can perceive and imagine. Finally, within the concrete operational stage, between the age of 4 and 7, the child reaches the third type of play, that of ‘games with rules’. In this type of play, Piaget claims, play becomes collective and acquires rules. These rules are either handed down from above, or concern selfconstructed rules for play. The child engages in more problem-solving play. In this phase, play involves classification and rules. (Scales et al.
1991; Brouwers, 2009)  
From this perspective, it appears that Piaget considers that children's play is a means for a primarily cognitive development. This unlike others, who regard of play as a social phenomenon, as will be discussed in the next section.

2.2.2. Social development and forms of play  
As a baby, the child has not yet any sense of self and regards of himself as an extension of its mother. From around the age of twelve months, a self-image starts to develop, marking an emotional detachment from its mother (Brouwers, 2009). Simultaneously, gender - and racial identity come into being. In terms of the childs’ social emotional development, between the age of 0-6, the childs’ emphaty is not yet fully developed. As the child is not yet able to put itself in another’s place, it is self-centered. As empathetic abilities increase however, the child commences to see others as individuals with their own thoughts and feelings (Feldman, 1997). Flavell (2004) identifies this as ‘theory of mind’: the ability to attribute mental states- beliefs, intents, desires, knowledge- to oneself and others, and to understand that others have beliefs, desires and intentions that are different from one's own (Flavell, 2004, as cited in Brouwers, 2009).

As described previously, the development of social emotional skills can also be recognized in the way children play, and in how their play evolves. Whereas in an early stage, children play with any child available, around the age of four, friends are made on bases of trust and mutual interest. A classic study on the development of so-called social play was conducted by Parten (Parten, 1932, as cited in: Brouwers, 2009, Feldman, 1997). In her study, the play of children between 2 and 6 years old was closely observed and categorised into six types, varying from playing alone (solitary play) to playing together (cooperative play). Initially, from around the age of two to three years old, the child is engaged in solitary play. In this type of play the child is completely engrossed in its play and takes no notice of others. Simultaneously, the child may be involved in so-called ‘onlooker play’ in which it takes an interest in other children’s play, but does not join in: their main activity is to watch. A more interactive type of play concerns parallel play. Here, the child mimics other children’s play, or uses the same material, but does not actively engage. Consequently, in its social development, the moment the child becomes less egocentric and is able to empathize with others, associative play comes
into being. Here, for the first time, the child becomes more interested in the (playing-) person itself than in its toys. This category involves the first form of social interaction. Concurrent with their social emotional development (theory of mind), once the child involves and interacts actively with others, it can engage in cooperative play. Here, playing is intentional, directed at others and the child adopts roles and acts in a group. (Feldman, 1997, Xu, 2010)

A prominent feature of Parten’s study is that, even though children keep interchanging between different types of play as they grow older, Parten discovered that during aging, children generally tend to participate less in the first four types of play and more in the last two, that is those that involve greater social interaction. Therefore, Parten emphasises the idea that ‘learning to play is learning how to relate to others’, and thus regards play as a social phenomenon.

Another major influence how children’s play can be viewed, can be attributed to Vygotsky, who also considered play to be a social phenomenon. In contrast to Parten, Vygotsky does not offer a systematic developmental theory on play, but merely a set of orientating concepts concerning children’s play. These concern childrens’ free play of fantasy and pretense, and the more structured and rule-governed playing of games that becomes more frequent in later childhood (Holzman, 2010). This type of play does not include activities such as movement activities, object manipulation or other forms of play behaviour as referred to by for instance Piaget or Parten, for ‘real’ play, according to Vygotsky, generally concerns pretend-play. Pretend-play is characterized by three major features: children create an imaginary situation, they take on and act out roles, and follow a set of rules determined by that specific role (Bodrova & Leong, 2003-b: 156)

Vygotsky considers play to be one of the child’s most significant sources of learning, as it includes language as a vital social tool – children learn within social interaction. (Vygotsky, 1933/1976). Play is thus regarded of as a social symbolic activity: it typically involves more than one child, and the themes, stories or roles that play episodes enact, express the children’s understanding and appropriation of the socio-cultural materials of their society (Scales et al, 1991:134). In other words: by playing (together), children imitate the world as they know and perceive it, in order to make meaning of it and form
their own opinions and understandings of that world. Moreover, since their play is self-initiated and pleasurable, children are highly motivated, which is an important condition for learning. Another central notion in Vygotsky's larger psychological theory is that of the 'Zone of Proximal Development', a term representing the difference between a child's actual developmental level and its level of potential development. To Vygotsky, play forms the actual source of development and creates the zone of proximal development (Vygotsky, 1931, in: Brouwers, 2009).

2.2.3. Role of the teacher in play

Whilst children's tendency to play is universally regarded of as being a natural phenomenon, gradually it is recognised that, in order for play to flourish as an enjoyable and cognitive ability, adult support is necessary (Singer, 2006, in: Kernan, 2007). An important premise of such support suggests that adults/teachers should use their knowledge of the processes and content of children's play to create content-rich environments that provide for a wide range of play possibilities, thus promoting learning and development (Bruce, 1987; Hendricks, 2001; Rinaldi, 1998, in: Kernan, 2007). Vygotsky, in his forementioned Zone of Proximal Development (section 1.3), agrees, as he also assigns a major role to the teacher. In his Social Development Theory, Vygotsky uses the term 'scaffolding' to describe the various forms of support a teacher can offer learners. From Vygotsky's point of view, the child's sociocultural environment is considered to be of major importance for its development, since children need this environment (i.e. other children, adults/teachers, the social context) to expand their action repertoire and thereby reach the zone of proximal development. Even though the child's ability of self guidance is leading in its play, the teacher is considered to be part of this sociocultural environment. Therefore it is of major importance for the teacher to stimulate this development. Such stimulation might include verbal assistance, questioning, suggestions and directions, all geared appropriately to the child's level of potential development, thereby advancing his or her actual development (Scales et al, 1991:135).

Bodrova & Leong (2003-a) also give a number of pointers for the teacher's role in children's play, for which they make a distinction between 'child-initiated play' and 'teacher-supported play'. 'Teacher-supported play' means that children are left to play,
but in case of stagnation of their play, the teacher joins in, thus providing some new input. Teachers should seek to create a balance between both forms of play. Secondly, they suggest that the teacher should create imaginary situations, in which ‘multiple useful’ objects (cf. symbolic play) can be offered, which can lead to imaginative play. Moreover, in order for children to expand their possibilities of play (and with it, their learning possibilities) the teacher offers themes that stimulate play. These themes relate to children’s ‘real world’, and the roles, language and actions that go with it. By ‘re-playing’ this world, children process these roles, language and actions. Bodrova finally suggests having the children, –prior to their play- , plan their play by the means of so called ‘play scripts’, or drawings (Bodrova & Leong, 2003-a). For a teacher, to offer these forementioned ‘new impulses’ and thereby moving the child towards its proximal zone of development. This of course requires the teacher to have (some) knowledge of the child’s development.

2.2.4. Summary

Theories on play, such as by Parten or Vygotsky, prove to be of great value in forming an understanding of play as a phenomenon. As outlined in the literature, young children experience the world as a whole, and learn about this world by means of play-manifesting itself as (e.g.) role play, manipulative play, or parallel play. In order to for children to develop in play, teacher presence appears to be indispensable, as he has to facilitate, monitor and scaffold childrens’ play.

To regard of play from various angles (cognitive, social), exposes the enormous richness of play, and thus provides for a vital foundation for the support of the concept of musical play later on. From this literature study, one thing has become clear already. That is, if we assume children to learn about their world through play, it is likely to expect that, when children learn about music in that world, they will proceed in the same way, namely by means of play. This could mean children might just as well demonstrate musical roleplay, musical manipulative play, or musical parallel play.

The next section will look into children’s musical development and the role of play within, and aims to be of use in order to discover whether this presumed connection between theories on play and musical play is justified.
2.3. The young child and its musical play

As the previous section suggests, play is central to children’s development. In order to fully comprehend the music learning process in early childhood, it is helpful to understand the possible relationship between play and music, as suggested by Marsh and Young who state that:

‘In comparison with other fields of children’s musical development, there is relatively little research into children’s musical play…… focusing their attention on adult-initiated activity in formal educational settings rather than child-initiated activity. Research mainly concerned ‘serious’ formal skills such as learning to sing, to play an instrument or to develop aural skills. Play for which there is no obvious ‘product’ in the form of measurable learning is thus seen as trivial and unworthy of serious study’ (Marsh & Young, 2006:291)

A study of recent research indeed seems to affirm the assumption that a focus on teacher-led musical activities, perhaps for them being easy to measure and verifiable, predominates. Nevertheless, as play appears to be of major importance to the child’s overall development (including its musical development), it is possibly useful to look into the phenomenon of musical play of young children more closely.

The following section will present an overview of the research literature on musical play, the role of the teacher, and finally discuss its value and implications for music education.

2.3.1. Informal musical play
In order to clarify the distinction between informal- and free musical play, a short overview of this type of play will first be given. Informal musical play concerns spontaneous musical activities performed by children in unconditional, informal settings, without any educational objective. This kind of spontaneous musical activity (vocal, instrumental) has also been called ‘musicking’ (Small, 1987). An important
aspect of informal musical play is the relationship between the activities children are
involved in and the music they make, e.g. thinking up suitable songs when playing in the
sandpit. Music is directly related to the young child’s perception of its environment, and,
as the child gets older, also to communication with others.

This definition makes it clear that informal musical play concerns the child’s own world,
and that, besides the fact that learning outcomes might derive from it, these are not
intentional. This in contrast to free musical play.

2.3.2. Free musical play
Free musical play takes place in a less informal environment, as it has been prepared by
the teacher with the purpose of stimulating the child to experiment with- and explore
the musical properties of sound. The initiative for playing is taken by the child itself.
Findings from the literature offer various forms of research on free musical play, where
experiments were set up concerning the design of the environment and role of the
teacher. As this section will illustrate, all research agrees on the need for facilitating a
stimulating environment for the child to play in. On the degree of teacher involvement
however, different views appear to exist, varying from ‘doing nothing, just watch’, to
interventions as joining in children’s play and adding/offering materials. This degree of
teacher intervention can be placed on a sliding scale, increasing from pure facilitation of
the musical environment at the one end, moving up to higher levels of teacher
intervention at the other. Interestingly, in this section, findings from literature from
previous sections, such as play categories by Parten, and teacher scaffolding by
Vygotsky, and Bodrova & Leong, will reappear, but in a musical application.

One of the first studies executed on childrens’ free musical play, was that of Moorehead
and Pond (1941/1978), also known as ‘The Pillsbury Foundation Studies’. From 1937-
1948, Moorehead & Pond conducted an in-depth study of the musicality and
spontaneous music making of young children in a prepared situation, by collecting
anecdotal records describing children’s singing, dancing and playing on musical
instruments, and this for over a longer period of time (varying from a few months to
several years). Teacher intervention was restricted to a minimum (p.8), by which it can
be placed on the far end of the sliding scale. From their observations and analysis,
Moorehead and Pond concluded that, (without teacher intervention), ‘free use of varied instruments led to growth in understanding timbre, pitch, vibration, rhythm, tonal relationship and melody’ (p.116). Concerning childrens’ general musical behaviors, Moorehead & Pond observed that, amongst other things:

- The free, flowing melody of a young child’s own song is not yet possible for him to reproduce on an instrument
- Each child explores instruments differently and later produces music recognizably different from that of other children
- Musical play behaviors with instruments, classified as sound exploration and rhythmic order, are characterized by rhythmic motifs

The authors stress the importance of the constant availability of musical instruments, just as art- and construction materials usually are, and state clearly that children need the opportunity to experiment freely with music. ‘If music is to be a language to them, they must not only hear it, but make it their own by constant use’ (p.117).

Bryant Miller (1990) carried out research on childrens’ natural musical behaviours in a prepared setting. A total of ninety-five children in the 3, to 5 years old age group, selected from eight preschools and kindergartens in Kansas, were observed while manipulating musical materials freely and spontaneously within their natural settings. Bryant Miller’s research consisted of two phases: the first phase grounded behaviours of children untill no new information was provided by participants. Based on these observations, a ‘Musical Behaviour Observation Matrix’ (MBOM) was designed. This matrix supplies for a set of thirty detailed indicators of childrens’ musical behaviours in order to assess musical behaviour by age, race, and sex. In the second phase data were coded on the MBOM, via event sampling techniques, as participant behaviours occurred. Results suggested that young children were capable of creating music without teacher intervention. No differences were observed in terms of race or social environment. What differences existed tended to relate to the age and sex of participants i.e., females demonstrated more movement than did males; males requested records to be played and used drums more than did females, and younger children tended to imitate more than did the older children.
Gluschankov (2008) also studied the free musical play of children between 4 and 5 years old, in a prepared setting. She reports on how children in two different crèches react to freely available musical instruments. The children initiated the musical activity, whereas the level of teacher intervention was restricted to the choice of available instruments: a very limited form of intervention. Results suggested that children at both crèches revealed similar forms of musical play. In this play, Gluschankov discerns two main forms of free musical play, i.e. ‘musical play’ and ‘extramusical play’. ‘Musical play’ concerned the exploration by the children of sound characteristics, whereas in ‘extramusical play’ children played with instruments (solitary, parallel and cooperative) and used them in role-play, construction play and movement games, as an auditory accompaniment to their play.

Finally, Littleton (1998) investigated the free musical play of 4-5 year olds in the childrens’ own classroom. Here-to, she prepared a music-play environment, refrained from further initiating or directing musical activities, observed, and consequently described childrens’ musical behaviours. Based on her observations, combined with play categories by (earlier mentioned-) Parten, she subsequently distinguished the following play categories within free musical play:

1- vocal, movement and instrument play behaviours
2- cognitive play:
   • functional - purposeful explorations of sounds with instruments or voices (compare scribbling or babbling stage); random selection of instruments with exploratory, intentional music making
   • constructive – controlled and deliberate manipulation with instruments, voices or movements to one or more musical elements
   • dramatic - occurs as children create musical motifs and invent special sound effects, as an accompaniment to their pretend-play
3- social play (solitary, parallel, group; related to Parten)

Littleton emphasizes the need for the teacher to demonstrate their interest and value for childrens’ activities, and that of teacher intervention, but does not further elaborate on this.
The subcategory ‘functional play’, id more explicit, that of ‘explorations’, as mentioned by Littleton, is a designation Young brings into discussion (Young, 1995). She argues that (frequently used -) play categories such as ‘exploration’ (Cohen, 1980, Kratus, 1994) and ‘experimentation’ (Flohr, 1981), seem to be too broad encompassed, and do not determine specific behaviours that can assist the teacher in supporting the young child’s musical play. Young suggests that practices of adult music making often act (implicitly-) as models for analysis and interpretation of young children’s musical behaviours, and from that point of view children’s spontaneous instrumental music making is often seen as nothing more than an example of random exploratory behaviour. From her research however, Young proposes this self initiated, musical play by young children could be far more subtle, and appears to cover a range of complex musical behaviours. Based on her research, Young claims a more discriminating analytical approach within children’s exploration, and suggests to look for musical behaviours within the following categories:

1. instrumental music making (repetitive playing actions, apparent immersion in the activity)
2. hybrid music making
3. non-sounding play with the instrument

With respect to the recognition and scaffolding of these categories, Young adds that the judgement on the teachers’ part to add just what is required to match the child’s level or even to enhance it, means that it is important for the teacher to have a notion of the child’s musical development. (Young, 1995).

Until now, in all preceding research, the degree of teacher intervention has been restricted to a minimum: the teacher only prepares the environment, and observes. Moving up on formentioned ‘sliding scale of teacher intervention’, brings us to research executed by Niland.

Niland (2009) carried out an investigation also based on a prepared environment, as she created a musical situation compatible to the interests and experiences of children (in this case, cars). Besides this environment however, she provided for musical input. The concept of her musical input is based on singing, as she says:

“...the voices of children are at the heart of a child centred curriculum” (Niland, 2009)
In her research, a song, chosen by the teacher, forms the impetus for activities initiated by the children. They were required to think up new words for the song, create musical accompaniment with instruments and invent movement games to go with it. The teacher offered new impulses where necessary. Observing the children’s musical- and play behaviours lends insights into their interests, perceptions and social interaction, and may help the teacher to introduce new elements into children's musical play. Niland’s approach to the child-orientated curriculum initially involved a large degree of intervention by the teacher, but suggests to reduce this, once the children take more initiative in their play.

Another example of free musical play is that of action research executed by Page Smith (2011). Her research was conducted at two schools in New York, initiating musical play with groups of children of 3,5 to 4 years old and children of 4 and 5 years old. The point of departure was the play in which children were currently involved. Page Smith linked in by both joining in their play and adding content (objects) to their play on the basis of observation, such as Orff instruments, a shadow curtain and video equipment. This additional content creates new impulses within the learning environment, which allow the children to discover new elements in their play and reach deeper levels of musical play. In this research the teachers plays an exact opposite role to that suggested by Niland: here children’s play forms the basis, and the teacher’s role is that of observer, initiator and facilitator. Wells (as cited in Young, 1995) stresses that the teacher, in ‘delivering’ such content as suggested by Page Smith, should try to adopt the child’s perspective and engage in an active, adaptive and constructive act of listening, in order to make a rich interpretation of childrens’ musical behaviour.

Pound & Harrison also acknowledge the importance of adult intervention in all aspects of childrens’ musical activity (Pound & Harrison, 2003). As a basis for teacher intervention, Pound & Harrison concur on the earlier mentioned importance of observational skills, as children’s musical activities ought to be observed in order to identify what it is that they need, and, consequently, how to intervene. To assist the teacher in doing so, Pound & Harrison provide for a set of indicators for musical behaviour/-development. With respect to ‘music making with instruments’ for instance, indicators describe musical behaviours concerning specific interest for sound, exploration of sound, and social interaction. Consequently, Pound & Harrison suggest forms of intervention aimed at the development
of learning. For this, they distinguish *child-initiated activities, adult-responsive activities* and *adult-directed activities*; categories that largely correspond to the earlier mentioned sliding scale of teacher-intervention.

Concerning child-initiated activities, Pound & Harrison suggest a teacher creates ‘an environment and climate for learning, that enables children to feel secure, to explore freely, to take risks and to interact with others’, and to join in childrens’ musical activities and reinforce learning through their enthusiasm and interest. Above all they should use their observational skills to see what is happening and use observations to plan both adult-responsive as adult-directed activities (Pound & Harrison, 2003:121). With respect to ‘adult-responsive’ activities, they propose the teacher to have musical conversations with children by joining in their spontaneous play, or by presenting new materials or musical ideas.

Finally, the teacher can offer adult-directed activities, such as initiating ‘band-sessions’ with adults or children as conductor, or creating soundscapes to poems, stories or pictures, or organising group sessions. These suggestions correspond to the other end of the sliding scale.

### 2.3.3. Summary

From this section, the distiction between informal- and free musical play has become clear, explaining free musical play to take place within an educational setting. The majority of research agrees on an explicit role for the teacher, emphasizing the need for observation and (in order to interpret musical behaviour), the necessity for the teacher to have some knowledge on the (musical-) development of children. Further elaboration of the teachers’ role varies, and can be placed along a sliding scale, coming down to:

- facilitation of a musical environment
- observation
- teacher intervention

In figure 1, suggestions from research are shown schematically, in successive order.
<table>
<thead>
<tr>
<th>A. Prepare a setting:</th>
<th>B. Observation, look/listen for:</th>
<th>C. Adopt the child's perspective:</th>
<th>D. Plan Teacher Intervention:</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the classroom (2)</td>
<td>Social Play (284):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide for various</td>
<td>• solitary play</td>
<td>• Songs they sing (5)</td>
<td>• join in</td>
</tr>
<tr>
<td>musical instrument</td>
<td>• parallel play</td>
<td>• Play they are involved in (6)</td>
<td><em>participating</em></td>
</tr>
<tr>
<td>s (1-5)</td>
<td>• cooperative play</td>
<td>• Materials they use</td>
<td><em>observation</em>; by an</td>
</tr>
<tr>
<td>See to constant</td>
<td></td>
<td>• Themes they are involved in</td>
<td>active, adaptive</td>
</tr>
<tr>
<td>availability of these</td>
<td></td>
<td>(6)</td>
<td>and constructive</td>
</tr>
<tr>
<td>musical instruments</td>
<td></td>
<td></td>
<td>act of listening (7)</td>
</tr>
<tr>
<td>s (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive play:</td>
<td><em>Functional</em> (2)</td>
<td>Adult-responsive:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or <em>Exploration</em> (3) play:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• exploratory, intentional</td>
<td></td>
<td>• add items (6)</td>
</tr>
<tr>
<td></td>
<td>instrumental &amp; vocal music</td>
<td></td>
<td>• join in musical</td>
</tr>
<tr>
<td></td>
<td>making (1, 2, 3)</td>
<td></td>
<td>conversations</td>
</tr>
<tr>
<td></td>
<td>• hybrid music making (3)</td>
<td></td>
<td>• suggest musical</td>
</tr>
<tr>
<td></td>
<td>• non-sounding play with</td>
<td></td>
<td>ideas</td>
</tr>
<tr>
<td></td>
<td>instruments (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constructive play</td>
<td>Deliberate manipulations of</td>
<td>Adult-initiated:</td>
<td></td>
</tr>
<tr>
<td>(2):</td>
<td>voice, instruments or movements</td>
<td></td>
<td>• initiate:</td>
</tr>
<tr>
<td>Dramatic play (2):</td>
<td>to musical elements</td>
<td></td>
<td>• <em>soundscapes</em> to poems,</td>
</tr>
<tr>
<td></td>
<td>musical motifs, sound effects</td>
<td></td>
<td>stories or pictures (4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• bandsessions (4)</td>
</tr>
</tbody>
</table>

(1) Moorehead & Pond (1978)  
(2) Littleton (1998)  
(3) Young (1995)  
(5) Niland (2009)  
(6) Page Smith (2011)  
(7) Wells, in Young (1995)

*Figure 1: Schematic overview of facilitation and guidance of Free Musical Play*
This schematic overview attempts to combine various outcomes as outlined in the literature, suggesting a possible (successive-) approach of facilitation and guidance of free musical play. Furthermore, information from this overview enables the answering of two research questions.

The musical play behaviours being described in column B, answer research question 2:

‘What are observable indicators for free musical play?’

as research question 3:

‘What is the role of the teacher within childrens’ free musical play?’

is answered by the overview of possible forms of teacher intervention, as supplied for in column D.

2.4. Musicians in schools

From section 2.2, it has become clear that within free musical play, adult/teacher intervention is important for the enhancement of childrens’ musical development. The adult joins in, thus broadening and deepening childrens’ musical play. The ‘adult’ in the described literature, usually relates to general teachers or specialized music teachers. As mentioned earlier however, professional musicians are encountered in Primary Schools as well, coming from music schools, orchestras and other musical institutions.

However, what exactly is known about their functioning: what activities do they undertake, how are these perceived by schools and what is known about their effectiveness?

These questions, combined with the former section on musical play, lead to the following research question:

‘What group based interventions can be performed by a musician that will positively effect childrens’ free musical play?’

In the UK, as well as in The Netherlands, orchestras, other musical ensembles, opera companies and individual musicians have, in recent decades, been engaging in education work in schools and other educational and community settings. In the
earliest phase (through the 1970s) their motive was mainly to build audiences of the future for classical music. A constant source of anxiety at the time was the apparent decrease in concert attendance amongst young people (Hennesy & Rowe, 2010). In the early 1990s the range and quality of education work undertaken by music organisations was rapidly developing into an ‘industry’, in the Netherlands partly due to government acts obliging cultural/musical institutions to an expansion of their educational activities. In this educational work, undertaken by musical institutions, Hennesy & Rowe identify various approaches, of whom two are encountered the most often in The Netherlands (Fruytier, 2004):

1. The ‘show and tell’ approach, in which musicians perform music to the children, demonstrate how the instruments work; interact with and involve children in handling and trying out the instruments.

2. Introducing repertoire, a version of the ‘show and tell’ in which musicians use a specific piece of their repertoire (perhaps a piece that children will subsequently hear in a concert). A variety of activities will be used, designed to engage children in attentive listening and becoming familiar with the work. (Hennesy & Rowe, 2010)

Since Primary Schools in The Netherlands are subsidised for their cultural education, schools tend to procure such educational projects are often used as a substitute for their own arts/cultural education. Furthermore, a lack of teacher confidence and skills amongst art subjects could play a part in this as well, as suggested by Bamford. Bamford conducted research into the Dutch arts- and cultural education, resulting in the report: ‘Arts and cultural education in The Netherlands’ (Bamford, 2011). Based on her findings, she states:

‘There appears to be considerable discrepancy between the policy ideals and the practice within schools. In part this appears to be due to the lack of expertise of teaching staff, especially in primary schools’ (Bamford, 2011:172)

Bamford points out that many teachers lack the confidence to mediate any cultural activity, which might imply that cultural activities should be taken up by professionals, or be handled in collaboration. Indeed Bamford looked into the collaboration between
museums and schools, but unfortunately takes no account of other cultural providers, such as orchestras, theatres- or dance companies. This can be considered an important omission, for it leaves important aspects untouched, such as the frequency, quality and effectiveness of existing collaboration.

Research has also been conducted on the effects of artists in general in schools. Stein (2004) investigated the experiences of professional artists working in ‘artist-in-education programs’ in American schools. In these programs, artists work in the classroom during the schoolday where they offer assemblies, workshops or residencies. It was found that schools expect these programs to connect integrally to the curricular subjects (i.e. math, science, English/Language Arts). Interviews with artists show that these integrated programs put stress on each individual artist, as -in order to come up to these expectations- the artist should participate in several planning sessions, conduct research for an educational design that fits the school’s needs, have classroom management skills and be prepared with a series of quality lessons. Unfortunately, how Stein comes to these conclusions does not become clear, as these rely on clarifying follow-up questions which are not specified. Furthermore, to a certain extent there might have been bias, as Stein used to be a former staffmember of the investigated program, and -as she faced aforementioned issues from first-hand experience- wanted to see these issues confirmed.

Nonetheless, her research points out a frequently encountered misalignment between artists and teachers in arts-in-education programs concerning required skills, time, and mutual expectations. Stein states this misalignment to stem from ‘the lack of professionalism inherent in a hybrid domain’ by the artist (Stein, 2004:20), and suggests a solution, that is: ‘if time and money are allocated to making planning an integral part of each arts-in-education partnership, artists and teachers can educate each other about their personal beliefs on the role arts can play in the classroom’ (Stein, 2004:15)

Bumgarner (2010) investigated the longterm effects of so called ‘residency programs’ on schools’ curricula and the level of their pupils. Coinciding with Stein’s research, Bumgarner found that those residencies (i.e. artists) who acted on their own, without any form of cooperation with the host schools, showed less impact than those who did.
In relation to the schools where teachers had not been involved in (the development of-) the residential material, Bumgarner states that ‘..because teachers generally lacked the knowledge and experience to build upon the residency material during the interim, much of the potential instructional momentum and impact was lost’ (Bumgarner, 2010:19). However, at those schools where host teachers in fact were immersed in every aspect of the artists’ work, Bumgarner recognized ‘a direct correlation between the extent of the host teacher involvement at the residency’s conceptual stages, and the residency’s overall quality and impact’ (Bumgarner, 2010:20). Subsequently she states:

‘When it comes to the effective implementation of educational programs, the understanding, commitment, and involvement of the teacher are absolutely essential’ (Bumgarner, 2010:21)

So far, the literature suggests that, above all, professional artists/musicians encounter many problems when working in schools, even to the extent that one can ask oneself whether such activities yield something for them. Nevertheless, Peggie (1997), identifies three kinds of benefit for musicians namely:

- personal development,
- acquisition of new skills and
- a broadening of professional context.

Musicians’ motives for participation vary from financial (supplement of income) to personal (their expertise is actively and visibly appreciated by children and teachers, leading to a more reflective and broader understanding of music in the lives of children). Finally, Peggie suggest that working on projects can help develop musicians’ communication-, problem solving-, creative thinking-, and improvising skills (Peggie, 1997).

General teachers are also able to benefit from this cooperation, as it enables them to see their pupils from a different perspective and thus raise their expectations of what they can achieve. Furthermore, new ways of working and new skills may be acquired and opportunities to reflect on their own practice through the lens of others (Peggie, 1997). Research on such interaction between teachers and artists was conducted by Upitis,
Smithrim and Soren, regarding professional development in the arts. This research resulted in a so called ‘three-level transformation matrix’, in order to picture professional growth (Upitis, Smithrim and Soren, 2006). Over a two-year period, teachers and artists were brought together with the aim of increasing their artistic sensibilities and skills. In partnership with performing arts organizations and museums, participants were offered workshops and individual learning projects. Subsequently, participants were observed, interviewed and filled out questionnaires. Based on gathered data, participants were placed in this matrix. Results show that ‘profound changes to teachers’ practices and beliefs can arise from this model’, and that ‘lasting change occurred for some participants after two years of professional development’ (Upitis et al., 2006).

2.4.1. Research questions

Findings from literature suggest that, taken the view that a collaboration is carefully planned in mutual agreement, a collaboration between general teachers and artists is likely to succeed. Such a conclusion gives rise to the following research question:

‘What effect will the use of a general teacher working alongside a musician in developing and performing musical activities, have on children’s free musical play?’

and, in order to find out whether this collaboration indeed results in this supposed positive mutual influence:

‘What impact does the experience have on the musician and the teacher?’

Finally, with respect to the long term effects of such joint intervention, the following research question is appropriate:

‘What is the longitudinal effect/impact of their intervention on children’s musical play?’
2.4.2. Summary

Previous literature suggests that little research has been carried out on the impact of cultural institutions’ educational activities on schools’ curricula. From the research reviewed however, it can be stated that planning with schools, taking account of the schools’ curriculum content, maintaining flexibility on the part of the institutions, and respect for professionalism of teacher were all seen as essential in order for a project to succeed.

Finally, if these criteria are met, artist and general teacher can learn from each other in reciprocity.

2.5. Conclusion and research questions

In this chapter, some of the basic aspects of play in general, and free musical play in specific, have been discussed and some examples of teacher intervention presented. In addition, the effects of professional artists’ activities on school’s curricula, as they are described by the relevant studies, were examined.

Key points from this chapter:

- Play is central to young children’s development
- Young children’s cognitive and social development is interdependent with play
- The teacher plays an important role in the support of children’s play, in order for them to learn
- Free musical play is a form of play, initiated by the child itself, taking place in a prepared musical environment, intended for learning
- In free musical play, the teacher plays an active role, by means of observation and teacher intervention
- This teacher intervention varies from pure facilitation, to joining in-, adding- and initiating musical activities

These points form a basis for the answering of the research questions:
1. What are observable indicators for free musical play?”
2. ‘What is the role of the teacher within childrens’ free musical play?”
• Quality arts education tends to be characterised by a strong partnership between the schools and outside arts (It is teachers and artists which together share the responsibility for the delivery of quality arts education)

• Planning with schools, taking account of curriculum content, maintaining flexibility and a respect for the professionalism of teachers were all seen as essential conditions for delivering quality arts education

Concerning the impact of musicians’ activities (-interventions-) on learning effects by children and, -more specific-, on musical play, a gap in literature was established. This research aims to address this gap in knowledge on this specific topic. Therefore the following research questions were developed:

3. ‘How, and on which conditions can young children’s free musical play be stimulated by the use of a live musician?’

4. ‘What effect will the use of a general teacher working alongside a musician in developing and performing musical activities, have on childrens’ free musical play?’

5. ‘What impact does the experience have on the musician and the teacher?’

6. ‘What is the longitudinal effect/impact of their intervention on childrens’ musical play?’

The next chapter will analyse some of the methodological issues that constituted the framework in which the study was carried out.
Chapter 3 - Research Methodology

In this chapter, the methodology used in this research will be discussed. Firstly, the motivation for a mixed methods approach will be considered, along with the possible difficulties such an approach can present. Secondly, the design, elaborated for this research will be explained, along with the possible advantages and disadvantages of its tools. Thirdly, the research population will be described. Finally, ethical implications of this study will be addressed.

3.1. Mixed Methods

This research worked from an integrated design, using a Mixed Methods approach to research. Mixed methods is a methodological approach that combines two forms of research: quantitative and qualitative research. Quantitative research stems from a positivist paradigm: it aims to uncover truths about the world by the use of a quantitative methodology – which is, in short: the formulation of a hypothesis and the collection of numerical data to test this hypothesis. Findings from such research are usually generalized to a larger population (Bazeley, 2002; Robson, 2011). Qualitative research on the other hand, is an approach to research that is based upon an interpretivist paradigm. Interpretivists explore the world without an hypothesis, or one truth that has to be discovered, as it rests on the belief that there are multiple truths and ways of seeing the world, and that these are specific to particular people in particular places (Hughes, 2001, in: Mukherji and Albon, 2010). Therefore, it collects more textual data, such as interviews, open observations or analysis of existing texts. From an interpretivist perspective, validity or truth cannot be grounded in an objective reality.

In a mixed methods design, both quantitative and qualitative data are collected, for the purpose of a better understanding of the research problem (Tashakkori and Teddlie, 2003; Creswell, 2005). The rationale for mixing both kinds of data in one study is that, in combination, quantitative and qualitative methods complement each other and allow for a more robust analysis, taking advantage of each other’s strenghts (Miles and Huberman 1994, Tashakkori et al. 2003). There are various ways of mixing both methods in a research design, but six forms are the most often used: three concurrent (quantitative
and qualitative methods at the same time), and three sequential methods (quantitative and qualitative in sequence) (Ivankova, Creswell and Stick, 2006).

In this specific piece of research, a sequential explanatory design was used. This type of design consists of two distinct sequential phases: quantitative followed by qualitative (Creswell, 2003). In this research, the first phase consisted of the devise of an observation schedule, which was piloted and adjusted. Systematic observations, based on this schedule, provided for quantitative, numeric data. Second in sequence, interviews with the musician, classroom teacher and children took place, in order to gain additional qualitative data. The rationale for this approach is that the quantitative data and their analysis provide a general understanding of the research problem, whereas the qualitative data and their subsequent analysis will help explain and elaborate the results collected in the first phase of the research (Tashakkori and Teddlie 1998; Creswell 2003). In this research, priority is given to quantitative data. Advantages of this specific approach are the possibility of a more detailed exploration of quantitative results, which ‘can be especially useful when unexpected results arise from a quantitative study’ (Morse, 1991, in: Ivankova et al. 2006). Disadvantages of this type of research are that it can be time consuming and that quantitative data are no longer objective, as they are mixed with qualitative data. Another disadvantage of this research design can be that, by the fixed determination of behaviours in the observation schedule, certain vital issues might miss out. Given the fact that these were used in all stages of the research, this could possibly lead to omissions. On the other hand, those behaviours that have been determined, were elaborated in depth.

3.2. Research design

This section will explain the general outline of this research, by describing the participants, the procedure and analysis of the data.

3.2.1. Participants

School and children

Research was conducted at a public Roman Catholic Primary School in Alkmaar, a medium-sized town in the north-west of The Netherlands. The school hosts
approximately 600 children, between 4 and 12 years of age. Although the school provided for a substantial amount of musical instruments, music education had little priority in its curriculum, besides some singing at High Holidays. One single teacher played the guitar and gave music lessons on a more structural basis, but overall there was no music education to speak of.

Selection of this school was done for its curriculum, which was based upon the educational concept of ‘Developmental Education’. Developmental Education is a play-based curriculum as it derives from Vygotsky’s concepts of play as a means of development, whereas ‘learning tasks are embedded within the play practices that are set up by the children and the teachers’ (Fleer, 2010:116). From a practical as well as an educational point of view, this educational approach suited the research topic very well. Since in this type of education play is aligned an important role, the teachers’ skills with respect to observation and scaffolding of such play were of a relatively high standard. This could have affected results, because such teacher skills play an important role in the development and execution of interventions.

The school was geographical positioned between a ‘richer’ and a ‘poorer’ district, therefore pupils came from different socio economic backgrounds. The research was conducted with a group of 4-5 year olds.

Class
This class consisted of 28 children, 16 boys and 12 girls. These children came to school twice a day: from 8:45 tot 11:45 hours, and after a lunch break at home, again from 13:15 to 15:15 hours. Their schoolday usually started with a group gathering, in which they talked about various topics, varying from the day of the week to the theme they were currently working on. From around 9:15 until 10:30 hours, the children chose for/were assigned to a specific play area (i.e. sand, water, blocks, house-), depending on their wish and availability. After a 30 minutes break to play outside and eat and drink, the teacher executed a group activity, varying from story time to environmental education. From this group, two boys and two girls, varying between 4,2 and 5,6 years of age, were selected for observation. Sampling of these children was done by mutual agreement with the classroom teacher, depending on children's willingness to participate and taking existing relationships between children into account.
3.2.2. Musician

The participating musician was a professional percussionist who graduated at the conservatoire in 1990, specialized in classical and jazz percussion. He was selected for this research for his wide experience in both music and education. He worked as a professional percussionist in different formations and was a percussion teacher at an arts centre for over 15 years. Here, he gave drum lessons to children from 8 years and up, in a one-to-one setting. The last 2.5 years he began to work as a music teacher in a secondary school for children with special needs. He had however, no prior training in educational activities as described in literature, nor any experience with this age group, besides being a father of 3.

Criteria for selecting a percussionist for this research (instead of e.g. a flutist, or a harpist), included:

- the instruments in the music corner were percussion based instruments, therefore a musician playing similar instruments might maximize/moderate any possible transfer of the intervention on children’s musical behaviours. With the selection of a less comparable instrument, e.g. a flute, transmission to musical behaviours would have been much more difficult to perceive. This might affect the data.

- literature shows that children’s rhythmic skills are the first to emerge. It was conceivable to expect the musicians’ (expected-) predominantly rhythmic input to be picked up by the children more easily, thus facilitating possible transfer. If a flute was used, data might have been affected by a mismatch between that what was offered, and to what children this age are capable of.

3.2.3. Teacher

The general teacher was a highly experienced teacher, specialising in early years. However, she had little experience with music herself, or with teaching music. As she had been working from the above mentioned educational concept of Developmental Education for several decades, she was well versed in the development of education. She was a part-time teacher. Her colleague approved of this study and was informed of the course of the research at regular intervals. With respect to her lack of musical
experience, the extent to which this could have affected data may be limited, for a primary school teacher with such little musical experience is a common factor. Her being well versed in the development of education, could be of some significance, although most early years teachers commonly are.

3.2.4. Procedure

Before any research process took place, permission from the school’s headmaster was required. Consequently, parental consent for the children’s participation was gained by means of a letter, explaining the purpose of the research (see appendix A). Once permission was obtained, the research started.

The research was carried out in three stages.

Stage 1 included a literature research. A study was carried out on free musical play and on artists/musicians operating in natural settings. Based on this study, a systematic observation schedule was developed in order to more specifically observe and quantify the free musical play of children in the 4-5 age group. (more on this observation schedule in section 3.5.: ‘Developing the schedule’)

Stage 2 included the whole group of children, the musician and a smaller group of 4 children. It had the following scheme:

- A selection of 4 children was taken from the whole group. Observation of these children on their free musical play took place as a ‘zero- or base line measurement’
- An intervention was performed by the musician in the whole group. The musician developed his own educational intervention
- Subsequently, the same four children were videotaped and observed in their free musical play. This was done at two intervals: the next day and after two weeks.
- Interviews with the musician on his rationale for working the way he did, as well as with the four children, on their experiences.

Stage 3 included the musician, the general teacher, the whole group of children and the above-named four children children. This stage had the following scheme:
• A joint intervention by the musician and the general teacher in the whole group. They developed their educational material in cooperation.

• Observation (videotape) of the same four children in their free musical play, again at the same intervals: the next day and after two weeks.

• Interviews with the musician, the general teacher and the children on their aims, intentions and experiences.

• Conclusion

3.2.5. Analysis

The observations were analysed by means of an observation schedule (see: 3.4. ‘Developing the schedule’). Data, derived from this schedule, were analyzed using quantitative (time-sampling and tally counting of behaviours) and qualitative (observation) research techniques and consecutively presented in main themes, supported by excerpts from observations.

All interviews were videotaped and transcribed, thus including non-verbal communication, as these are important contextual factors as well (Morrison, 1993:63). Concerning transcribing interviews, Miles and Huberman state it to be practically impossible to transcribe a “correct” interview, since ‘integration of analysis and interpretation is unavoidable’ (Miles and Huberman, 1994). Therefore, in the analysis, one has to be critical of this process, to avoid any bias. Data from the interview with the musician after his first intervention were interpreted, in order to see plausibility, using informed intuition to reach a conclusion.

Outcomes of two interviews, i.e. the musician and the general teacher (separately) after their joint intervention, were compared in order to identify interrelations between variables.
3.3. Research tools

For this research, various data collection techniques were adopted. Here, subjects for certain data collection techniques will be indicated, and techniques’ relevancy and benefit for this research will be justified for.

3.3.1. Systematic Observation

Structured, non-participant observations were used. In relation to a researcher’s participation in an observation, Gold describes a continuum (Gold, 1958, cited in Cohen et al., 2011:457). On this continuum, the researcher’s roles can lie as far apart as: ‘doing nothing, just looking’ (i.e. complete observer), to: ‘being a member of the observed group and participating fully’ (i.e. complete participant). In the conducted research, the researcher acted as complete observer, as in a ‘non-participant observation’.

Data were collected by observations of a small group of children playing with musical instruments in a prepared music-play setting, a so called ‘music corner’. All observations were videotaped. This music corner was set up in the classroom in order to preserve the study’s naturalistic integrity. At the teacher’s request, the music corner was situated on an entresol, accessible via stairs. Selection of the musical instruments present was done for their easy accessibility, variety, intrinsic worth and adaptability to the purposes of the children. Concurrent to findings by Moorehead and Pond (1978), these musical instruments were at constant availability to the children. An index of the musical instruments can be found in Appendix B.

Collected data were analyzed by means of an observation schedule, which indicates a structured observation.

3.3.2. Interviews

For this research, the musician, the general teacher and the children were interviewed to gather additional qualitative data, in order to validate observations as well as for triangulation later on. The musician and general teacher were interviewed by means of semi-structured interviews, using a limited number of pre-arranged, open-ended questions, to encourage meaningful responses. During the interview the researcher decided its sequence, following issues as they arose. Interview questions derived from research objectives, and were designed to gain insights in the areas of agreement and
conflict within their own ideas about the uses of their educational activities and collaboration. A copy of the schedule can be found in appendix C.

The children were interviewed as a group, as this encourages interaction and can be less intimidating than an individual interview (Arksey & Knight, 1999, in: Cohen et al., 2011:433). Shortly after their music making session, the children viewed the footage of this session and were asked by the researcher for their motives and experiences. Hereunto unstructured interviews were used, employing open-ended questions, as these questions: a) avoid single answer type of response, preventing children to answer without thinking, and b) take children’s limited linguistic or cognitive abilities into account (Greig & Taylor, 1999, in: Cohen et al., 2011:433). Such flexible, un-structured interviews however, makes taking notes difficult, as it disrupts and distracts the interview process. Therefore, interviews were video-recorded, with the advantages that aspects of non-verbal communication were recorded as well, thus enhancing reliability and validity of responses (Fielding & Thomas, 2008, in: Mukherji & Albon, 2010:130).

3.4. Advantages and disadvantages of the tools

Data collection techniques have their advantages and disadvantages. As it is important to be aware of them, this section will explain how these were taken into consideration in this study.

3.4.1. Systematic observations

Observation can be a powerful research tool, but it is not one without difficulties. Firstly, observation is itself highly subjective, as it relies on the interpretation of the perceived behaviour by the observer, ‘observer bias’ (Cohen et al. 2011:474, Mukherji & Albon, 2012:116). To overcome this drawback, another (independant-) researcher tested the observation tool prior to its actual use. Subsequently, a number of (video based-) observations were checked for alternative interpretations, as suggested by Flick (Flick, 2009, as cited in Cohen et al. 2011).

Secondly, the use of video in observations can be experienced of as intrusive. Therefore, prior to the observations, time was taken for the participants to become familiar with
the researcher and the camera. Video observations were preferred to ‘live observations’, for their benefit of repeated viewing, thus giving in-depth information. This advantage counter balanced for camcorders’ known disadvantage, being that of poor sound recording quality (especially in a school setting with a lot of background noise). Another important disadvantage of observation, is that it isolates data from its context, i.e.: the observation schedule focusses the attention on certain indicators, by which other, unintended outcomes, that may be of significance, might be overlooked. Therefore it is important to keep an open mind as well, and try not to be too predetermined or systematic. Finally, it is important to be conscious of the aspect of time – a disadvantage of structured observation in general, as Cohen states: ‘…if we accept that behaviour is developmental, that interactions evolve over time, and, therefore, are, by definition, fluid, then the methods of structured observation. taking a series of ‘freeze frame’ snapshots of behaviour, violate the principle of fluidity of action’ (Cohen et al., 2011:463).

3.4.2. Interviews

Interviews in general have the advantage that they allow greater depth than other research tools do, as data reveal more of the participant's (non-verbal) response on a question than e.g. a questionnaire would do. Herein, at the same time, lies its disadvantage, for interviews can be highly subjective, entailing possible bias (Bell, 2010). Concerning interviewing children as a group, this also has its strengths and limitations. The fact that children are recognized as experts in their own setting, as well as that this way of interviewing resembles the way they are normally having conversations, works for this mode. One should be aware of interaction however, for it can be difficult to identify an individual opinion from a group view, as children influence each other (Lancaster and Broadbent, 2010, in: Roberts-Holmes, 2011).

3.5. Developing the schedule

In order to explore children's musical play behaviours and possible effects by interventions, a (literature based-) observation schedule was developed. This observation schedule provided for precisely defined musical behaviours, in order to generate numerical data, enabling subsequent comparison and analyzation.
In this schedule, musical behaviours were categorized in themes, related to literature. As children played in the music corner as a group, it was of interest to look into effects of interventions on their social play. Therefore play categories by Parten were used. Social play behaviours were operationalized with the help of indicators suggested by Bryant-Miller (1990). These also supplied for indicators in the category ‘Musical Behaviours in General’. Prior to its use, the schedule was piloted with another researcher, experienced in observing (young-) children, but unfamiliar with music-education. This was done with the help of a video, showing six children playing in a music corner. These children did not belong to the sample group. All children were observed, and outcomes of the observations compared. This led to changes on certain indicators: some were added (after noticing missing behaviours), some were removed (being superfluous), and others were elaborated (i.e. into positive- and negative utterances of behaviour). Finally, indicators in the ‘Other’-category were grounded on this pilot. The final version of the observation schedule is found in Appendix C.

3.6. Ethical issues

3.6.1. Issues of consent
Parents were asked for consent by letter, prior to the study (see appendix A). This letter was clear on used tools such as video observations and intended purposes. All parents gave their written consent. During the research, children were given the possibility to withdraw whenever they wanted; they were asked whether they were happy to continue at all stages of the research. It must be noted however, in research ethics, this so called ‘informed consent’ (i.e. participants voluntarily agree to participate in the research, understanding its full consequences and given the right to withdraw) proves to be a point of care when it comes to young children (Mukherji & Albon, 2010). Generally, children in the age of 4-5 do not yet possess the adequate awareness of time to assess the full impact of his agreement to participate over a longer period of time. In relation to childrens’ willingness to participate, this fact had to be taken into account during the course of the research, as it could effect childrens’ prolonged participation (Roberts-Holmes, 2011).
3.6.2. Issues of anonymity

All names of participants and institutions remain anonymous. Parents were given the assurance that no video footage of their children will be made public, on the Internet nor otherwise. They did agree, however, on its eventual use for (small setting-) educational purposes.

3.6.3. Issues of power

Even though the children gave their consent, the difference in power might have contributed to that consent: because the researcher is an adult, and most adults in schools are the ones that are in charge, children might not easily say ‘no’ to (prolonging of-) participation. An example of such a situation that indeed occurred, is when a child did not want to play in the music corner anymore, and asked: ‘How long do we have to be here? I want to play with my Lego’. This caused a problem, for the classroom teacher assigned all children to a specific Lego area, and others weren’t allowed to change during play time neither. Therefore, this child could not withdraw. This might have affected data, but, on the other hand, children are used to such restraint.

3.7. Summary

This chapter has presented some major methodological concerns. Finally, an outline was given about the procedure, the participants, the observation schedule and the ethical considerations of this investigation.

Key points from this chapter:

• The mixed method was chosen for the elaboration of this study, combining quantitative data (systematic observations) and qualitative data (interviews) in order to gain additional depth.

• Data collection took place in the naturalistic setting of the classroom, by means of systematic (video-) observations of childrens’ musical play, and semi-structured interviews with the musician, the general teacher and the children.

• Observations and interviews were basic research tools, since these provide for useful data in order to answer the research objectives, and allow triangulation.
• The sample of this study consisted of a professional musician, a general teacher and four children in the age of 4 up to 6 years.
• Ethical considerations and issues related to the validity of this study were taken seriously into account during the research process.
• Strengths and weaknesses of observation and interviews were taken into consideration during their design.

Chapter 4 will give an overview of the course of the research, followed by the analysis and discussion of the quantitative data collected by the systematic observations.
Chapter 4 - Reporting, Analysis and Discussion of the Quantitative Data

Introduction

This chapter consists of two main parts. The first part provides a description of the course of the research, i.e. a summary of the interventions carried out by the musician and the classroom teacher, plus an account of some changes/alterations that were made to the original outline of the research. The second part presents, analyses and discusses data collected from quantitative part of this research: the observations.

4.1. Course of the data collection and interventions

After the installment of the music corner and the children getting acquainted with the researcher, data collection started. Hereto, firstly, 4 children (sample group) played in music corner. This was video recorded for observation later on, as a zero measurement. Then, the first solo intervention musician with the whole group took place, followed by an interview on his rationale and experiences. The next day video observation of the 4 children in the music corner was done, and so again after two weeks. Then, the musician and classroom teacher together executed an intervention with the whole group, which they devised and prepared in cooperation. Subsequently, the musician and classroom teacher were interviewed separately on their rationale and experiences of the event. Then again, video observation of the children in the music corner took place; the next day and after two weeks.

The figure below schematically represents the course of the data collection:
In order to interpret eventual effects of the musician’s and classroom teacher’s interventions later on, it is important to know what their interventions consisted of.

(a) Solo intervention by the musician
The musician worked with the whole group of children. First, he demonstrated melodic instruments from the music corner, by playing them and telling the children about the correlation between height and size. Subsequently, he made a comparison with mice, making high sounds, and elephants making low sounds. He then had the children (while seated) move concurrently to the sounds he played. He finished with a ‘hide-and-hear’ game: one child hid with an instrument and played, while the others, eyes closed, had to point the direction the sound came from, and distinguish between high and low.

(b) Collaborate intervention musician and classroom teacher
The musician and classroom teacher together worked with the whole group of children. They went over a known song (accompanied by the musician on guitar,) and studied 3 extra verses. To support the lyrics while singing, the classroom teacher showed pictures...
with inscriptions, matching each verse. She then assigned the verses to 5 groups of children and placed each of them on a separate bench. Each group then sang their own verse, with one child holding up the picture. The classroom teacher conducted, with the musician accompanying on guitar. Finally, each group accompanied their verse’s chorus with a simple rhythm on various instruments, again conducted by the classroom teacher. The pictures were then added to the music corner.

Alterations during the research

During the course of the research, changes and adjustments to the research setting were made, namely:

1. After the third play session, the music corner was transferred to the hallway. This was done for three reasons. Firstly, because it appeared to be too confined a space, and secondly, that the researcher was physically too close, which effected the participants (asking questions/to stop, looking in the camera). The third reason for transfer was the noise, which proved to be a nuisance for others. In the new setting, children had more elbow-room, and were more ‘alone’ and unseen, as the other children were in the classroom.

2. An important event then occurred during the third play session. This took place on Good Friday and all other children were colouring Easter eggs. As children in the music corner wished to take part in this activity, and not in music, this session ended in a collective early withdrawal.

3. Finally, the pilot observation led to adjustments to the observation schedule, namely:
   - The indicators (musical- and verbal-) ‘Interactions’ were separated into ‘positive’ and ‘negative’
   - The indicators ‘changing instruments’ and ‘combining instruments’ were added
   - Two indicators were removed, being: ‘plays instruments correct’ and ‘uses instruments in a socially appropriate manner’ as they turned out to be superfluous (constantly tally-counting ‘normal’ behaviours).
4.2. Report/analysis of systematic observations

In this research project, observations were carried out of the children playing in the music corner. Initially, it is important to bear in mind some basic features of the sample and certain events:

- The sample consisted of four children between the age of 4,6 and 5,7
- two boys, two girls, and,
- the phenomenon of a music corner and free musical play was new to them, and,
- they had only received a limited amount of music education in a school setting prior to the study taking place.
- In addition, it should also be noted that one boy was absent during the third and fourth observation and the music corner was transferred to the hallway.

The scheme of this subsection will be as follows: first, per child, ascending in age, an overview and subsequent summary of observed behaviour will be given, Then, in a total summary, the main features of all observations will be presented. Finally, in order to add another layer of understanding and depth, findings from the literature review will be revisited with a view to synthesizing theory with practice.

4.2.1. Observations child 1: H. (4,6 years of age)

H. was the youngest child participating in this research. The matrix below (see fig. 3) gives an overview of the appearance of observed behaviours over the time of research.
| **Child: H.**  
| **Age: 4.6** |
| **Observation 1: Zero measurement (March 20)** |
| **Observation 2: Day after musician’s intervention (March 23)** |
| **Observation 3: Two weeks after musician’s intervention (April 3)** |
| **Observation 4: Day after collaborative intervention (April 13)** |
| **Observation 5: Two weeks after collaborative intervention (April 26)** |
| **Additional information:** |
| * Warm, 30°C | * 1 child absent | * I child absent | * Music area relocated to the hallway |
| **Forms of play:**  
| **Play session duration:**  
| 90 minutes | 90 minutes | 30+ minutes | 90+ minutes |
| **Solitary play:**  
| Brief solitary play for 5 minutes  
| Plays mainly solitary first 6 minutes, then withdraws for 6 minutes  
| Plays solitary most of the time  
| Starts with solitary play for 4 minutes  
| Engages (short) in solitary play twice in succession |
| **Parallel play:**  
| Observes others for the first 10 minutes  
| Looks at others, takes to her own music making  
| Plays next to peers with minimum on interaction twice (after 5 minutes and the last minute)  
| Plays next to peers periodically throughout the music making session |
| **Cooperative play:**  
| Plays up a beat from peers (6)  
| Picks up temp (4)  
| Shares instrument with peers (2)  
| Minimum on musical interaction in the final 5 minutes  
| Interacts in cooperative play to some degree, mainly in a negative way - musical as well as verbal  
| Minors interaction, just asking for another instrument  
| Interacts in cooperative play from start to end  
| Frequent positive musical and verbal interaction  |
| **Manipulative/exploratory play:**  
| Plays the same instrument for 15 minutes, examining & exploring  
| Changes instrument (1) in the final 5 minutes  
| Combines instruments (1)  
| Plays the same instrument, manipulating and exploring  
| Changes instruments (1)  
| Combines uses one instrument to play on the other  
| Plays the same instrument throughout  
| Changes instruments (1)  
| Combines uses one instrument to play on the other  
| Changes instruments (5) in 15 minutes  
| Combines instruments (2)  
| Combines instruments (1)  
| **Motoric play:**  
| Sits still, does not move around  
| Sits still, does not move around  
| Jumps in a parachute with peers  
| Walks around now and then |
| **Musical behaviours:**  
| Plays simple, soft, repetitive melodies in a steady beat  
| Plays simple, soft, repetitive melodies in a steady beat. No rhythm  
| Plays lead and soft on the same instrument in a steady beat  
| Sings solo, accompanies herself  
| Sings together with peers  
| Sings together with peers  
| Plays loud, maintains a steady beat  
| Begins to associate up-down high-low on a melodic/gpio | |
| **Other:**  
| Asks to stay after 15 minutes, again after 25 minutes, leaves the music corner  
| Asks to stop after 5 and 15 minutes  
| Exhibits musical frustration (yelling)  
| Teacher intervention (2); undesirable behaviour  
| Asks to stop after 5 minutes, withdrawal  
| Uses musical vocabulary to describe sounds (5)  
| Asks for help (2)  
| Asks to stop after 20 minutes  
| Uses musical vocabulary to describe sounds (5)  
| Leaves the music corner and returns (3)  
| Teacher intervention (1); suggests using teacher delivered materials |

**Figure 3: Observation scheme H.**

**Summary H.**

Initially, H. showed primarily solitary and parallel play, engaging in manipulative and exploratory play. This, mainly on one single instrument, examining and exploring it. Towards the third session, play sessions became shorter, with H. asking for withdrawal every session. From the fourth session on, however, a significant increase of cooperative play was discerned. This manifested itself by frequent imitation of beat and tempi, making up rules for play (2), using musical vocabulary, and suggesting of musical ideas (2), with an increase of these features towards the final session.

Furthermore, she showed various musical behaviours on various instruments, and moved around. This in play sessions of increasing length.
4.2.2. Observations child 2: Ar. (5,2 years of age)

<table>
<thead>
<tr>
<th>Child: Ar.</th>
<th>Age: 5.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obs. 1: Zero measurement (March 20)</td>
<td>Obs. 2: Day after musician’s intervention (March 23)</td>
</tr>
<tr>
<td>Additional Information</td>
<td>* Warm 30°C</td>
</tr>
<tr>
<td>Forms of play</td>
<td>Play session duration</td>
</tr>
<tr>
<td>Solitary play</td>
<td>Plays solitary throughout the session. Experiments with sound combinations (5)</td>
</tr>
<tr>
<td>Parallel play</td>
<td>No parallel play</td>
</tr>
<tr>
<td>Cooperative play</td>
<td>Occasional musical interaction (3), frequent verbal interaction (7), sometimes neg. (3), picks up ideas from others (5), rhythmic (1). Makes up rules/musical ideas (1), interacts with others</td>
</tr>
<tr>
<td>Manipulative/exploratory play</td>
<td>Examines instrument throughout the session (7), changes instruments regularly (12), combines them (3)</td>
</tr>
<tr>
<td>Motoric play</td>
<td>Moves to music played by himself (7)</td>
</tr>
<tr>
<td>Musical Behaviours</td>
<td>Plays music, while singing (6), plays loud (5) and soft (1) in a steady beat. Improves rhythm (4), melodies (2), reproduces rhythms (5)</td>
</tr>
<tr>
<td>Other</td>
<td>Uses musical vocabulary to describe sounds (6), teacher intervention (1)</td>
</tr>
</tbody>
</table>

Summary Ar.

Ar. was an inquisitive child, strongly directed at rhythmic instruments, initially mainly engaged in solitary play. The first session, Ar. was absorbed by this type of play, with an excessive changing of instruments (12 times!) and exploratory behaviour. This however, diminished over time, resulting in an average of 2 times change of instruments and 4 times exploratory play in the final session. In the fourth and fifth session, he became more directed at others, engaged in cooperative play and even joined a marching parade. Throughout all sessions, Ar. remained strongly directed at percussion instruments (drums), showing (high standard-) rhythmic skills, reproducing rhythms and maintaining a steady beat. He hardly engaged in melodic play, and sangs occasionally. His behaviours did not change over sessions.
### 4.2.3. Observations child 3: Ab. (5.6 years of age)

<table>
<thead>
<tr>
<th>Form of play</th>
<th>Play session duration</th>
<th>Obs. 1: Zero measurement (March 20)</th>
<th>Obs. 2: Day after musician’s intervention (March 23)</th>
<th>Obs. 3: Two weeks after musician’s intervention (April 5)</th>
<th>Obs. 4: Day after collaborative intervention (April 13)</th>
<th>Obs. 5: Two weeks after collaborative intervention (April 26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solitary play</td>
<td>30 minutes</td>
<td>Plays solitary (1)</td>
<td>Observes others without participating (2) in the first 5 minutes</td>
<td>Observes others without participating (2) in the first 5 minutes</td>
<td>Absent</td>
<td>No solitary play</td>
</tr>
<tr>
<td>Parallel play</td>
<td>20 minutes</td>
<td>Observes others without participating (2) in the first 5 minutes</td>
<td>Interacts with others, although not very frequently: musical – positive (3) and social – negative (1) and positive (2). Makes up musical ideas (1)</td>
<td>Absent</td>
<td>Absent</td>
<td></td>
</tr>
<tr>
<td>Cooperative play</td>
<td>10 minutes</td>
<td>Observes others without participating (2) in the first 5 minutes</td>
<td>Positive musical (5) and verbal (6) interaction throughout the session; initiates musical ideas from peers throughout, such as beat (c), rhythm (a) and tempo (d). Makes up musical ideas (1)</td>
<td>Absent</td>
<td>Absent</td>
<td></td>
</tr>
<tr>
<td>Manipulative/exploratory play</td>
<td>30 minutes</td>
<td>Examines/manipulates instruments throughout the session (8); changing rhythm (13) and combining instruments</td>
<td>Examines/manipulates instruments (4), uses them non-musically (1), changes (2) and combines them (3)</td>
<td>Absent</td>
<td>Absent</td>
<td></td>
</tr>
<tr>
<td>Motoric play</td>
<td>30 minutes</td>
<td>No motoric play</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
</tr>
<tr>
<td>Musical Behaviours</td>
<td></td>
<td>Reproduces rhythmic patterns almost throughout the session; maintaining a steady beat; improves a simple melody (1). Plays loud (1) and soft (1), non-musical play with instruments (2)</td>
<td>Relatively little musical behaviours: plays loud (2), soft (1), maintains a steady beat (1) and improves a simple rhythm (1)</td>
<td>Absent</td>
<td>Absent</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>30 minutes</td>
<td>Uses musical vocabulary to describe sounds (6). Aims to stop once (1) after 10 minutes.</td>
<td>Exhibits musical frustration (6), plays instruments incorrectly (2) and socially inappropriate (3). Aims to stop (2), teacher intervention (12)</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
</tr>
</tbody>
</table>

### Summary Ab.

Because of his absence twice and subsequent lack of continuity, it is difficult to make any valid comments on Ab.’s development. This except for the fact that from observations, Ab. seemed mostly socially orientated, which becomes clear in the first and final session. In all sessions, Ab. examined/manipulated extensively. Towards the final session, he became very creative in combining instruments. A slight increase of non-musical use of instruments was observed. Ab. showed a significant dip in involvement and motivation for musical play during his second session.
4.2.4. Observations child 4: N. (5,7 years of age)

<table>
<thead>
<tr>
<th>Child: N. Age: 5,7</th>
<th>Obs. 1: Zero measurement (March 20)</th>
<th>Obs. 2: Day after musician’s intervention (March 23)</th>
<th>Obs. 3: Two weeks after musician’s intervention (April 5)</th>
<th>Obs. 4: Day after collaborate intervention (April 13)</th>
<th>Obs. 5: Two weeks after collaborate intervention (April 26)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional information</td>
<td>30 minutes</td>
<td>20 minutes</td>
<td>10 minutes</td>
<td>30 minutes</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Forms of play:</td>
<td>Play session duration:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solitary play</td>
<td>Shows no solitary play during the entire session</td>
<td>Plays mainly parallel for the first 10 minutes, then in cooperative play for 5 minutes, then 15 minutes alternating these two types</td>
<td>Shows no solitary play during the entire session</td>
<td>No solitary play during the entire session</td>
<td>Observes others without participating (1)</td>
</tr>
<tr>
<td>Parallel play</td>
<td>Shows no parallel play during the entire session</td>
<td>No parallel play during the entire session</td>
<td>No parallel play during the entire session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperative play</td>
<td>Shows positive musical (1) and verbal (4) interaction, negative verbal interaction (1). Demonstrates to peers (2) and initiates rhythms played by others (2)</td>
<td>Musical, positive interaction (1), and positive verbal interaction (3)</td>
<td>Regular positive musical (1) and verbal (6) interaction. Negative musical (1) and verbal (1) interaction in the first 5 minutes. Asks and demonstrates throughout (7), makes up stories (1) and rules/ideas (10) for musical play. Sings with others (2), initiates beat (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manipulative/</td>
<td>Deeply engaged in matching instruments (14) and shuffling them regularly (15). Makes combinations (6). Uses instruments in a non-musical way once (1)</td>
<td>Examines and manipulates instruments throughout the session, (5), changing once (1). Uses them in a non-musical way (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>exploratory play</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motoric play</td>
<td>Very agile, moves around, using specific parts of the body in response to elements of the music (3)</td>
<td>Stays still for the first 30 minutes, then moves to her own music (2), using specific parts of the body to various elements of her music (1)</td>
<td>Moves no music played by herself (2)</td>
<td>Moves around throughout the session, mainly to music played by herself (4), using specific parts to various elements of music. Moves in music played by others (3)</td>
<td>Especially the first 25 minutes N moves around a lot, basically to music played by herself(7) and once (1) to others while forming a marching band</td>
</tr>
<tr>
<td>Musical Behaviours</td>
<td>Improves simple rhythms (2), reproduces rhythmic patterns (1), and improves a simple melody (1)</td>
<td>Shows no signs of any musical behaviour, other than matching music/behaviour as mentioned above</td>
<td>Alternates fast/slow (2), reproduces rhythmic patterns (1)</td>
<td>Plays loud (1) alternates fast and slow (4), maintaining a steady beat (2). Improves simple rhythm (1), reproduces simple rhythmic patterns (2). Starts to associate up/down/low-high on a xylophone</td>
<td>Maintains a steady beat while playing (6), improves simple rhythm (1), reproduces rhythmic patterns (1)</td>
</tr>
<tr>
<td>Other</td>
<td>Has a varied musical vocabulary, uses it often (10). N asks to stop (1) after approx. 12 minutes, continues after teacher intervention (1)</td>
<td>Plays with something else than instruments (2), sometimes in an inappropriate manner (3). Uses musical vocabulary (1) and exhibits musical frustration (2). Teacher intervention (2)</td>
<td>Uses instruments in a socially inappropriate manner (1), exhibits musical frustration (1), asks to withdraw after (1)</td>
<td>Uses musical vocabulary throughout the session (10). Adds to teacher’s help (1), asks to withdraw after 30 minutes.</td>
<td>Uses the instruments socially inappropriate for a while (obscure rhythm changes). Teacher intervenes (1), complementing children on their musical and suggesting the use of teacher delivered materials</td>
</tr>
</tbody>
</table>

Figure 6: observation scheme N.

Summary N.

N., the eldest child, showed almost no solitary-, and very little parallel play. She was very much directed at other children, seeking musical and verbal contact regularly, making up rules and ideas, assisting and demonstrating to others. In the fourth and fifth session, a significant increase of these behaviours occur, increasing from an initial 4 times musical interaction to 10 and 9 times in the last two sessions. After the second intervention, N. used the materials that were added to the music corner, to initiate cooperative play. N. was an agile child, moving around a lot, regularly using specific parts of the body to various elements of music. The first three sessions she moved to music played by herself, whereas in the fourth and fifth session group motoric play emerges, and the children formed a marching band together. N. sang for the first time after the first intervention.
4.2.5. Total Summary: Development per indicator

This subsection will discuss to what extent all children showed development per indicator.

Solitary play
During all sessions, two children didn’t play solitary at all. Solitary play of those two who did, diminished during the fourth and fifth session.

Parallel play
Development on parallel play was divergent: one child showed an increase, another a decrease, others remaining the same.

Cooperative play
Two children, who initially didn’t show any cooperative play at all, showed an increase on this type of play during the fourth and fifth session. Two other children, directed at interaction from the start, showed an increase on this type of play as well.

Manipulative/exploratory play (MEP)
All children showed a substantial amount of MEP. The threesome, present at all sessions, showed a decrease on this type of play towards the fourth and fifth session. This in contrast to the one child who was absent twice: he kept showing this type of play.

Motoric play
One child was very agile during all sessions, the first three sessions mainly to music played by herself. All children however, showed a increase of (cooperative-) motoric play during the fourth and fifth session.

Musical Behaviours in General
On this indicator, the youngest child showed a significant development, moving from simple repetitive manipulations to more complex musical behaviours. Musical behaviours of two others, who already had some ‘repertoire’, remained the same, only the singing was added. The eldest child showed various behaviours throughout, and had,
after a ‘dip’ towards the third session, a sudden revival during the fourth and fifth session.

Others
Towards the fourth and fifth session, request for withdrawal diminished and eventually failed to occur. From the fourth and fifth session, there was an increase on teacher intervention and requests for help.

4.3. Observation results: discussion

4.3.1. Zero measurement
During the base line measurement, the children were exploring the instruments. They showed little interaction with each other, possibly because the instruments were more interesting, for being new. As described by Moorehead and Pond (1978:116), each child explored differently: one child used one and the same instrument throughout the session, constantly repeating the same movement, whilst others were manipulating multiple instruments in different manners. The majority of children played rhythmic, using little melody, concurrent to findings by Moorehead and Pond, who noted: ‘musical play behaviours with instruments (...) are characterized by rhythmic motifs’. The two youngest children only played solitary and parallel, while the other two tried to play with others. This fits Parten’s description of development in social play, as she points out that, when growing older, children ‘generally tend to involve more in social interaction’ (1997, cited in Feldman). During this first play session, 3 children asked to stop within the first 15-20 minutes. Teacher interventions only occurred when children asked for the teacher’s help, mainly concerning minor conflicts.
Now, this overview of children’s initial musical play marks a starting point. In the next sections it will become clear whether any effect of the interventions on childrens’ play can be established.

4.3.1. Observations after the musician’s intervention
Following the musician’s (solo-) intervention, the children were observed whilst playing in the music corner the next day, and again so after two weeks. The day after the musician’s intervention, the children showed the same type of play as during the zero
measurement - no significant changes were observed. In his intervention, the musician had treated the musical properties high and low. None of this was observed in children's play, nor any use of language to describe high and low. It is of interest to note that Moorehead and Pond state something similar, i.e.: ‘the free flowing melody of a young child’s melody is not yet possible for him to reproduce on an instrument’. The 'hide-and-hear'- game the musician had offered, was not repeated either. During this observation, 3 children asked to stop within the first 5-10 minutes.

The next observation, after two weeks, was short. One child was absent, the other three showed very little action on all indicators. What they did, was mainly solitary, expressing musical frustration regularly. Within the first 5-10 minutes, all children asked for withdrawal. In this observation no transfer of the intervention was established either. Again, the only teacher interventions concerned solving minor conflicts.

Based on these two observations, the conclusion might be drawn that the lack of transfer of his intervention to the children's musical play, might be due to the fact that its content did not match the children's level, nor type of play. It is, as Singer (cited in Kernan, 2007) puts it, a fact that 'for play to flourish as an enjoyable and cognitive ability, adult support is necessary(....), as they should use their knowledge of children's play to create content-rich environments'. It has to be taken in account, however, that external factors played a role in this as well, e.g. Good Friday and other children colouring their Easter eggs. Nonetheless, this incident considered, from these events it can be stated that the musician did not possess such knowledge, whereby he could not adjust his intervention to the children's needs.

A final consideration with respect to this lack of transfer, is that, to a certain extent, it is perhaps an unrealistic expectation for such a thing to happen. Children, when in an educational setting, are more or less conditioned to respond to the teacher; they are subordinate in a teacher led situation. In this specific setting of the music corner, however, the absence of the teacher results in a different context, whereby earlier offered subject matter (offered in a teacher led situation!) is not necessarily expected to be used. In other words: it might be the context that gives rise to transfer The fact that transfer indeed did happen when the classroom teacher offered materials and intervened on them, might be due to the children responding to a familiar context. This
context was far more similar to situations the children are used to, and therefore they acted as ‘schoolchildren’; who do what they have been told

4.3.2. Observations after the collaborate intervention
Following the collaborative intervention, on the classroom teacher’s initiative, the pictures used in the event were added to the music corner. This material, familiar to the children, had significant effects on their play. During the fourth and fifth observation, solitary play of all children diminished, making way for cooperative play, based on these pictures. Children used them in roleplay with ‘musicians’ and ‘conductors’, and described sounds with musical vocabulary. Vygotsky calls this ‘pretend play’, and regards this as a social symbolic activity, whereby children ‘express their understanding and appropriation of the real world’ (Vygotsky, 1933/1976). Next, the children made up rules for their play, which coincides with Piaget’s concrete operational stage, in which play ‘becomes collective and requires rules’ (Piaget, in: Brouwers, 2009). The activity that went with the pictures, gave rise to all sorts of interaction, cumulating in a collective marching band with drums. During these two observations, the classroom teacher intervened on her own initiative, and informed after-/complimented on children’s play, suggesting other activities with the materials. This teacher behaviour is what Bodrova & Leong (2003-a) describe as ‘teacher-supported play’, which means that children are left to play, but in case of stagnation, the teacher joins in, providing new impulses.

It is worth mentioning that the youngest child in particular was affected by these events. From initial mostly solitary play with one single instrument, her play evolved into cooperative play, showing various musical behaviours on multiple instruments. She imitated other children frequently, which can be interrelated with findings by Bryant-Miller, who also found that younger children tend to imitate older children more often than vice versa. Other findings also support the work by Bryant-Miller, such as girls moving more than boys and boys using drums more often. In the final observation, however, shortly after the start, all children showed socially inappropriate behaviours, throwing mallets at each other. They seemed less challenged by the music corner/materials than the time before. It took a teacher intervention to get them back in order again.
Key points from this chapter:

- Children initially played mainly solitary and parallel, experimenting with the various instruments
- No significant effects/transfer of the musician’s solo-intervention could be established
- Children’s enthusiasm for the music corner diminished towards the third play session
- After the collaborative intervention, cooperative play emerged, with children using multiple instruments and showing collaborative motoric play
- Overall, findings coincide with literature, concerning causes for transfer, effects of teacher support and children’s play behaviours.

In Chapter 5, reporting, analysis and discussion of the interviews will be presented, followed by the triangulation of quantitative (observations) and qualitative (interviews) data and literature.
Chapter 5 - Reporting, Analysis and Discussion of the Qualitative Data & Summary

Introduction

This chapter consists of two main parts. The first part presents, analyses and finally discusses the qualitative data that were collected from the interviews with the musician, classroom teacher and the children. The second part of this chapter commences with some considerations on possible bias that could have affected data. It will then move on to the answering of the initial research questions, This chapter will conclude with a total summary, in which all gathered data (quantitative as well as qualitative-) will be triangulated with literature.

5.1. Report and analysis of the interviews with musician and classroom teacher

Here, interviews with the musician and the classroom teacher will be presented and analysed. Verbatim transcriptions of the interviews can be found in appendix D.

5.1.1. Interviews with the musician after his first intervention, followed by the classroom teacher's experiences on this intervention.

Interview Musician

Question 1

*What was the aim of your intervention?*

Response

The musician explained he wanted children to hear the difference between high and low sounds. Visual recognition was less important to him. Therefore, he wanted to assess their discrimination skills with an aural hide-and-seek game. With respect to this game, he added that he had made it too difficult for the children, as it did not match their attention span and capacity for aural discrimination.
From his answer, it appears he did not realise this previously, which might indicate an unfamiliarity with his target group.

Question 2
*How did you prepare this intervention?*

Response
The musician chose to use the instruments from the music corner for his intervention. With respect to the choice of his topic, he stated:

> ‘for me, as a percussionist, it would seem rather obvious to do something with drums and rhythms, but I considered that to be too limited’.

In contrast, he based his intervention on the correspondence between instruments’ size and height, exploring the musical properties of high and low. Illustrating some assessment of the level of his target group, he noted that he ‘wanted to keep it simple’ and work with contrasts, instead of ‘demonstrate and recognize multiple sounds on one single instrument’.

Question 3
*What is your rationale for this specific approach?*

Response
In his answer, the musician discerned three aims. Firstly, he wanted to start with a collective activity, and looked for a song about high and low (which he was unable to find). Secondly, with the hide-and-seek-game he wanted to check to what extent children were able to distinguish high and low. Thirdly, he wanted to offer an activity ‘that was enjoyable and exiting for children this age’. In doing so, it looks as if in the design of the intervention, to some extent, the musician took aims and target group into account.
Question 4
How did you experience the intervention?

Response
In response, the musician stated that: ‘...it proved to be harder than I thought’, and listed a substantial number of things he wasn’t happy with in retrospect. He had missed, for instance, a collective activity such as singing, which could have served as a group activity as well as an aid to remember things about high and low. Furthermore, he suspected the children had had too little to do, because the entire intervention had been teacher led. Reflecting upon that, he stated: ‘I think I worked this way because it made me feel safe, since I was in control all the time’.

Question 5
What do you think the children as a group has learned from this intervention?

Response
Here, the musician responded rather cautious, saying:

‘...I think they’ll know by now that a small instrument produces high sounds’ and: ‘the younger ones might still associate high and low with ‘high in the sky’ and ‘down below the ground’, instead of low sounds’.

Formulation and tone of his answers indicated some uncertainty to whether what he supposed, indeed had occurred.

Question 6
Which aspects of the intervention do you expect the children to transfer to their free musical play and why?

Response
Here, the musician responded direct:

‘As a matter of fact, I didn’t take that into account at all... (...) I didn’t think that was a task for me’.

As a ‘gesture’ to the researcher, he did suggest however, that the chosen topic was probablly to abstract for children to transfer to an independent activity, and that it would be more likely to expect them to experiment and potter about with the instruments. He
thought it conceivable however, that children would use musical words (high, low) in little conversations.

Here, the classroom teacher's preparation and reactions on the musician’s first intervention are described:

The classroom teacher’s announcement of the musician to the children had been without much aplomb: she just told the children the day before and the very day of his visit that ‘a real musician is coming to visit us!’ and that it would be a surprise what he was going to do. As far as the factual content of the musician's intervention was concerned, the classroom teacher admitted she had been most disappointed with the musician's intervention: ‘I expected something sparkling with instruments like guitar or djembe, but all he did was talk about music’, explaining: ‘...there was too little interaction. Children this age have to act; they learn with their whole being and body. (...) I think it's a waste’. Toning down, she added that the fact that children had been unfamiliar with him, and that he himself had been a little tense, had not really helped.

5.1.2. Interviews with the musician and the classroom teacher after the collaborate intervention

Three weeks after the musician's solo-intervention, the musician and the classroom teacher executed a cooperative intervention with the whole group. Respondents were interviewed on this event separately. The analysis of these interviews, however, will be presented together, in order to compare and identify interrelations between variables.

Question 1
What was the aim of your intervention? What was your rationale for this content?

Response
The respondents’ answers to this question show two different approaches. The musician’s rationale emphasized objectives, as he explained:
‘We wanted children to learn to look at- and pay attention to a conductor, and for them to be silent during the singing and playing when necessary’.

The classroom teacher’s answer went more into preconditions that had to be met:

‘...I wanted the intervention to integrate in the current theme³. I also wanted it to be something really sparkling this time, and make sure all the children were actively involved in music making’, thus leaving out the factual content of the intervention.

It is of further interest to note that the musician spoke in the plural form, and the classroom teacher in first person.

Question 2
How did you experience your collaboration in the realization of the content of this intervention?

Response
Both classroom teacher (‘awkward’) and musician (‘ill-at-ease’) agreed on an initial uneasiness with their newly established cooperation, and that it took them some time to become acquainted with one another and each others wishes. After a while, however, the classroom teacher thought of it to be fun:

‘We got in contact during the development of the intervention. I came up with an idea, and he was inspired by it’.

The musician felt different on their cooperation, as his reaction to a song, chosen by the classroom teacher, illustrates. Disagreeing on this song, (it was about how difficult it is to make art), he stated:

‘I didn’t want the children to think it’s hard to make art, because I think everyone is an artist in his/her own way’.

His answer indicates a possible opposed perception of art.

Subsequently, from their answers it becomes clear that in the realization of this intervention, they built upon each other’s ideas, resulting in a collaborative end result. It was the classroom teacher however, that took the children’s level into consideration, and

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³ Being: Art
thought of using pictures to support the song, in order to keep children motivated. The musician thought of adding extra verses, making up with the amount of benches. Summarized, according to the musician:

‘The classroom teacher’s input was mainly of an organizational kind, plus the provision of the theme and some particular ideas (...) , but specific music didactical knowledge or experience (...) had to come from me’.

Question 3

How did you experience the collaboration between you and the musician during the course of the intervention? (How do you feel about the course of the intervention?)

Response

Here, the musician acknowledged he had learned much from the classroom teacher, concerning class management and the effect of her input (drawings) on children’s involvement:

‘I noticed that, because of her input, the children were more involved; certain parts of the intervention were familiar, new aspects were brought in as well. That proved to be very important’.

The classroom teacher, on the other hand, stated that:

‘...the musician’s contribution to the intervention was fairly minimal, and therefore of little value to me. I cannot state that I learned from him in any way’.

This is an indication of a discrepancy between experiences on mutual influence.

Question 4

What do you think the children as a group has learned from this intervention?

Response

Here, in contrast to question 1, the musician and classroom teacher agree on the majority of goals, as they both name: learning a new song, play an instrument on the right places, look at the conductor and act upon this, and experience that one can ‘read’ and play music with the help of pictures.
Based on their answers, this can be regarded as an area of agreement.

**Question 5**

*Which aspects of the intervention do you expect the children to transfer to their free musical play and why?*

**Response**

The musician answered, quite frankly:

‘**None specific, to be honest, as it did not have my focus**’.

This in contrast to the classroom teacher, who, without hesitation, listed a whole number of aspects, naming the conducting part, the rhythm part in the song and the pictures. Concerning children's cooperation, she noted:

‘**Cooperation might be difficult, as these were four strong headed children**’.

Here, the conclusion might drawn that the classroom teacher was used to design/plan education over a longer period, taking her pupils level into account, whereas the musician’s attention was directed just on this individual event, working short-term based.

5.2. **Summary Analysis Interviews Musician and Classroom Teacher**

With respect to the solo intervention musician, it can be stated that:

- It appeared to be more difficult than he initially expected, with respect to children’s level and agility
- Looking back, he realised his intervention had been too much teacher led; probably caused by ‘feeling-safe-by-being-in-charge’
- He was not sure he achieved his goals
- He had not anticipated on any transfer from his intervention to the music corner
- The classroom teacher thought not very highly of his intervention
And with respect to the collaborate intervention of the musician and classroom teacher:

- Any aims of the intervention were formulated by the musician straight away, whereas the classroom teacher merely described preconditions that had to be met.
- In retrospect, however, the classroom teacher could identify some of the intervention’s learning outcomes.
- The collaborate design of the intervention went well: musician and classroom teacher built on each other’s ideas.
- The musician alleged it was mainly him that took care of the music didactical input.
- The classroom teacher contributed the general didactics.
- In contrast to the classroom teacher, the musician stated to have learned much from the classroom teacher (not vice versa).
- With respect to transfer of the intervention to the music corner, the classroom teacher named several aspects, whereas the musician had not taken that into account.

5.3. Interview Children

Interviewing children proved to be difficult. For this interview, the researcher, while watching the video footage, questioned the participants on their motivations for shown behaviour, e.g.: ‘I can see you playing with the xylophones for quite some time… How did you choose that instrument?’, or: ‘What kind of sound does it make?’. This interview was filmed as well, and when viewing this footage children’s difficulty with answering such questions appeared. They seemed unable to motivate their behaviour from a musical point of view, and demonstrated a certain lack of musical vocabulary- the only musical words they used were ‘loud’ and ‘soft’, but could not nominate other musical features. Largely, the tendency of their answers was: ‘O – just because…’ or: ‘No idea’.

Besides the lack of a musical vocabulary, the way of interviewing by the researcher might have also been a cause for the described responses as well. Possibly, questions (even for them being open-ended and with the use of appropriate language), were too much directed at accounting for observed behaviours by the participants and experienced of as
obtrusive. Because of these difficulties, and since this interview did not appear to supply for any useful data, the idea of interviewing participants was abandoned. An additional reason for this was the researcher feared the participants, when continuously being exposed to the music corner and the researcher, might become tired of it and withdraw from the research.
A full transcription of this interview can be found in Appendix E.

5.4. **Interview results: Discussion**

In this section the outcomes of the interviews will be discussed, and linked to similar events in the literature. Since interviewing the children was eventually left out of this research, it will not be included in the discussion.

5.4.1. **Interview musician**

From the interview, it became clear that the musician was not too happy about the course of his intervention. In his preparation, he tried to take the level of his target group into account, by using the instruments from the music corner, and by ‘keeping it simple and one-dimensional’. He did not, however, contact the classroom teacher on this, i.e. acted on his own. During the intervention, so the musician stated, things proved to be more difficult than he expected. It appeared to be too complicated for the children, and, in retrospect, he did not think they picked up everything he aimed at. This coincides with findings by Bumgarner (2010), who states: ‘Artists who acted on their own, without any form of cooperation with the host schools, showed less impact than those who did’. Furthermore, the musician felt the intervention had been too much teacher led, leaving too little to do for the children. ‘I think’, he stated, ‘it made me feel safe, being in control all the time’ – a form of didactics that resemble the ‘show-and-tell-approach’, as was mentioned in research by Hennesy and Rowe (2010): the musician talks and demonstrates, the children sit and listen (and are inactive).
The musician had not anticipated any age related difficulties such as children's dynamics and short span of attention. This supports what Stein calls: 'a lack of professionalism in a hybrid domain' (Stein, 2004), where 'hybrid' refers to the intersection of two professions. When preparing the intervention, apart from the use of the music corner's instruments, he had not anticipated the possible transfer of his activities to the children's free musical play, despite him being aware of the research's aim. This might indicate a short term vision on his educational work. In this respect, it can also be of interest to recall the 'schematic overview of facilitation and guidance of free musical play' from the literature review. From this overview it became clear that, to facilitate free musical play, four steps have to be taken, i.e.: 1: prepare a setting, 2: do observation, 3: adopt the child’s perspective and finally 4: plan an intervention. An assignable cause for the lack of any transfer to the children's free musical play, might be that he did not take the previous three steps, as he just offered the intervention.

Finally, it is interesting to note the musician was disappointed that he had received no feedback (positive nor negative) from the classroom teacher.

5.4.2. Reaction classroom teacher on the musician's intervention

The classroom teacher, in return, was disappointed about the musician's intervention. She thought of it as uninspiring and far from what she expected an artist would do. Such misalignments between artists' and teachers’ mutual expectations were encountered by Stein as well (Stein, 2004). Her findings gave rise to the suggestion that artists and teachers should educate each other in partnership.

5.4.3. Interview musician + classroom teacher

With respect to the abovementioned partnership, during the cooperative development of the intervention, the musician felt that he had been solely responsible for the music didactical input. In his opinion, this had contributed a great deal to the intervention's success. This view, however, demonstrates that he apparently did not realise how he built on vital preconditions that were already created by the classroom teacher, such as a safe environment and secure and confident children. Further analysis of the data reveals that, for the musician, the aims of the intervention were clear from the start, whereas the classroom teacher merely described learning outcomes afterwards. This designates an expert role to the musician, for he indeed had the knowledge on music and
essential musical skills, that were lacked by the classroom teacher. The classroom teacher, on the other hand, contributed general didactical knowledge. This proved to be vital too, not only for the course of the intervention itself, but also for transfer to children's free musical play. The classroom teacher in fact anticipated such transfer (by designing materials that could serve in the music corner later on), this in contrast to the musician, who only focussed on the intervention itself. So, for this intervention to work, both during the event as concerning transfer, musician and classroom teacher needed each other. This, in accordance with findings by Bumgarner (2010:21) who argues that: ‘When it comes to the effective implementation of educational programs, the understanding, commitment and involvement of the teacher are absolutely essential’, and, from an opposite perspective: ‘Because teachers generally lacked the knowledge and experience to build upon the residency material during the interim, much of the potential instructional momentum and impact was lost’ (pg.22).

5.5. Bias

In spite of the fact that attempts were made to limit any episode of bias, data might still have been affected by a number of factors, namely:

- Transfer of the music corner to the hallway. This was an unavoidable measure, since it was the teacher's request, but proved to have significant effects on children's play. The increase of usable space led to children marching around and showing other motoric behaviours. From this, the conclusion can be drawn that usable space effects types of play.

- The events on Good Friday, where other children were colouring Easter eggs, might have been largely related to the children's collective withdrawal.

- Play, as found in literature, appears to be a ‘free and pleasurable self chosen event’. In the design of this research, however, children were ‘placed’ in the music corner in order to be observed. This could have effected data with respect to their motivation.

5.6. Research questions

1. What is free musical play?
Free musical play is a form of musical play that takes place in an environment that has been prepared by the teacher, with the aim to stimulate the child to experiment with and to explore the musical properties of sound. Here, the child may play alone or in a group. The initiative for play is taken by the child itself. The teacher guides children’s play, and gives new impulses regularly. The degree of such teacher involvement can be placed on a sliding scale, varying from child initiated play at the one end, to adult initiated at the other.

2. What are observable indicators for free musical play?

Free musical play can be regarded from various perspectives. It can be seen from a general point of view, which means children develop cognitive and social skills by means of play, and from a musical point of view, which implies children develop musically through play. Each of these views results in different indicators. In main lines, these come down to: indicators on social behaviours, such as solitary, parallel and cooperative play, and indicators on musical behaviours, which concern singing, motoric play and playing on instruments. This ‘playing on instruments’ leads to play categories such as manipulative/exploratory play, and those concerning children using volume, beat, rhythm and melody.

3. What group based interventions can be performed by a musician that positively will effect young childrens’ free musical play?

The participating musician’s intervention proved to have no significant effect on children’s free musical play.

For any effect to occur, group based interventions performed by musicians should (at least) meet the following conditions:

- The intervention must fit the target group, with respect to their general and musical level. In order to do so, collaboration with the classroom teacher is crucial.
- All children should be actively engaged during a group based intervention. The thus generated involvement seems to be an important condition for transfer.
• Opportunities for transfer have to be taken into account whilst planning the intervention.
• Concrete requisites, employed in the group based interventions, evoke play in the music corner later on.

4. What effect will the use of a classroom teacher working alongside a musician in developing and performing musical activities, have on children’s free musical play?

The cooperation between the classroom teacher and the musician led to significant effects on all indicators of free musical play. Children tended to play for a longer period, showed an increase on (more varied) musical behaviours, as well as on types of play. The synergy between classroom teacher and musician appears to be an identifiable factor in this effect.

5. What impact does the experience have on the musician and the teacher?

The musician stated to have learned from the classroom teacher, but not vice versa. Reason for this, might lie in the lack of pedagogical skills by the musician, as these proved to be crucial in establishing effects of the interventions on children’s free musical play.

6. What is the longitudinal effect/impact of their intervention on childrens’ musical play?

Within two weeks after their collaborate intervention, its effects on children’s musical play were already diminishing. Therefore it may be stated that, for free musical play to continue and develop, it is important for a teacher to provide for interventions regularly.

5.7. Total Summary and triangulation

Analysis of the observations reveal that, initially, children’s play was mainly of a manipulative/explorative nature.

From literature it has become clear that interventions are of vital importance for free musical play to flourish. These interventions can range from child-initiated to adult directed.
Such an intervention, conducted by a musician on his own, without him adjusting to his target group and its developmental stage, appeared to have no significant effect on children’s free musical play, which coincides with literature on artists in residence in general. The musician stated he had been unfamiliar with this target group and felt that he lacked the necessary pedagogical / didactic skills, resulting in him being in charge all the time (adult directed).

A joint intervention by a musician and classroom teacher, however, did have effects. Besides the intervention itself, both the teacher presented materials and the teacher’s scaffolding skills, led to significant changes on children’s play. An increase of cooperative play (and consequent decrease of solitary play) was found. Furthermore, an expansion of (more varied-) musical behaviours, extended play duration and a higher motivation became apparent. First mentioned ‘increase of cooperative play’ especially affected the younger children, who were taken in tow by their older peers, which led to a broadening and deepening of their play.

These outcomes appear to be caused by synergism, which concurs with literature. Musician and classroom teacher cooperated successfully in the realization of their intervention, building upon each other’s strengths. It should be noted, however, that mutual learning did not take place here, since the musician indicated to have learned much from the group teacher, but not vice versa.

As the above has not been investigated up to now, new knowledge was found. This research closed the existing gap in knowledge. Two weeks after the joint intervention the teacher presented materials proved to be less challenging, as the children, soon after the onset, showed socially undesirable behaviours. Only after a teacher intervention they returned to the materials for some time. This might indicate that, for free musical play to continue, teachers need to intervene/ give impulses on a regular basis.

A final insight that emerged from this research, is that children needed space: a significant difference in types of play (more motoric play, more cooperative motoric play) was found when children had more physical elbow-room.

The next chapter summarises the main findings of this investigation and suggests implications for further research.
Chapter 6 - Conclusions

6.1. Summary of the thesis

This investigation was concerned with music education in the lower classes of Dutch primary schools, and how classroom teachers and professional musicians can contribute to free musical play of young children. Research shows that Dutch music education in Primary Schools is substandard. Classroom teachers hardly teach any music, and when they do, it most often is inadequate. In primary schools, music education directed at young children is mostly teacher led. Young children, however, learn largely by means of play, which is a child directed activity par excellence. Therefore, besides teacher led music education, such ‘free musical play’ should deserve a place in primary school’s music education as well. In order to facilitate and guide such free musical play, however, teachers need specific knowledge and skills, which perhaps should be added to initial teacher training’s curricula.

Besides classroom teachers, professional musicians are encountered in Dutch primary schools as well. They come from local music schools, institutions for cultural education or from orchestras, and execute musical programs, initiated by their institutions. These musicians possess the musical skills needed to communicate on music, but, in their turn, seem to lack the general pedagogical skills necessary to work with groups. Cooperation between these two groups seems therefore obvious, if not essential. However, if such cooperation is to succeed, parties should consult one another and build upon each others’ strenghths.

This research aimed to investigate to what extent such cooperation could be benificial to music education directed at young children (i.e. free musical play), and to classroom teachers’ and musicians’ professionalism. The study had the following research questions:

1. ‘What is free musical play?’

This was answered by a literature study, which also provided for sufficient information to answer the second research question, being:

2. ‘What are observable indicators for free musical play?’
In order to find out what knowledge and skills a teacher might need to facilitate and guide free musical play, for it to flourish, the following question was formulated:

3. ‘What is the role of the teacher within children’s free musical play?’

This question was answered by the literature study as well. Based on the information obtained by these research questions, a systematic observation schedule was developed, in order to register children’s free musical play. Next, an investigation was carried out on a primary school, which involved a professional musician, a classroom teacher and her group, and a sample of four children in the age between 4 and 6. Firstly, this observation schedule was used for a zero measurement on the free musical play of the sample group. Then, the musician executed a whole group intervention, in order to answer the following research question:

4. ‘What group based interventions can be performed by a musician that will positively effect childrens’ free musical play?’

To see whether any transfer of his intervention indeed would occur, the sample of 4 children was observed on their free musical play the next day, and again after two weeks. In order to find out what the added value of a collaborative intervention by the musician and classroom teacher would be, the following research question was formulated:

5. ‘What effect will the use of a general teacher working alongside a musician in developing and performing musical activities, have on children’s free musical play?’

Here, again, after the intervention, the children were observed on their free musical play the next day and after two weeks. This collaboration might lead to a mutual influence, which gave rise to the research question:

6. ‘What impact does the experience have on the musician and the teacher?’
To answer this question, both musician and classroom teacher were interviewed on their experiences. Finally, to find out if any established effects would last, the following research question was developed:

7. ‘What is the longitudinal effect/impact of their intervention on children’s musical play?’

6.2. Main findings

Analysis of the observations reveal that, initially, children’s play was mainly of a manipulative/explorative nature. From literature it became clear that interventions are of vital importance for free musical play to flourish. The effects of the musician's solo intervention on children's free musical play appeared to be negligible. This intervention, in which he did not adjust to his target group nor to its developmental stage, appeared to have no significant effect on children’s free musical play. The musician stated he had been unfamiliar with this target group and felt he had lacked the necessary pedagogical/didactic skills, resulting in him being in charge all the time (adult directed).

Effects of the collaborate intervention on children’s free musical play, however, appeared to be provable. Not only the intervention itself, but also the applied materials, devised by the classroom teacher, and her subsequent scaffolding skills led to significant changes on children’s play. The musician’s input during the design and execution of the intervention was primarily of a musical nature, which proved to be a valuable addition. All this led to an increase of cooperative play (and consequent decrease of solitary play). Furthermore, an expansion of (more varied-) musical behaviours, extended play duration and a higher motivation became apparent. First mentioned ‘increase of cooperative play’ especially affected the younger children, who were taken in tow by their older peers, leading to a broadening and deepening of their play.

These outcomes appear to be caused by synergism: musician and classroom teacher cooperated successfully in the realization of their intervention, building upon each other's strengths. It should be noted, however, that mutual learning did not take place, since the musician indicated to have learned much from the group teacher, but not vice versa.

Two weeks after the joint intervention the teacher presented materials proved to be less challenging, as the children, soon after the onset, showed socially undesirable behaviours. Only after a teacher intervention they returned to the materials for some time. This might indicate that, for free musical play to continue, teachers need to
intervene / give impulses on a regular basis.

A final insight that emerged from this research, is that children needed space: a significant difference in types of play (more motoric play, more cooperative motoric play) was found when children had more physical elbow-room.

6.3. Implications

Here, implications of the research’ outcomes for the parties involved will be described.

6.3.1. Personal/professional

The literature study and findings of this research can help me, as a professor on both a teacher training college and a conservatoire, to bridge the gap between classroom teachers’ competencies on the one hand, and those of musician’s, working in Primary Schools on the other. I have a clear vision on how they need each other, in order for them to offer better music education, and am in a position to contribute to this aim.

6.3.2. Schools/teachers

Free musical play, as a part of music education for young children, is something schools should facilitate, in order to meet all their educational needs. This implies that classroom teachers should have knowledge on children’s musical development, enabling them to carry out varied interventions. The acquisition of such knowledge creates a commitment to teacher training colleges, who should implement such in their curriculum. Teachers, aiming to include a music corner in their program, should meet vital preconditions such as sufficient space and the willingness to accept noise. Subsequently, they should collaborate with musicians for their specific musical expertise, and develop interventions in partnership.

6.3.3. Musicians/orchestras/art centres

In order for them to be succesful, musicians/art centres should always cooperate with schools (classroom teachers) in the development of their educational offer, and make use of the host school’s expertise concerning general didactics and specific knowledge on the target group. Finally, it is important that they aim at connecting with the school’s curriculum.
6.4. Recommendations for future research

This research closed a gap in knowledge, as it made clear that free musical play of young children can benefit from a cooperative intervention by a professional musician and a classroom teacher. However, this was just a small scale pilot, with a relatively small sample and limited observations. To my opinion, this research can be regarded as a pilot study for a more in depth study on a larger scale. Such research could benefit from the following recommendations:

• use multiple schools and teachers
• use various musicians, representing different types and styles of music
• in order to enhance validity, do a research over a longer period (approximately a year), so that longitudinal effects of interventions may lead to generalization
• investigate the effects of various forms of teacher intervention, such as described in the sliding scale
• the cooperation between teacher and musician could be more elaborated in terms of mutual influence and learning from each other's expertise
• make use of control groups, in which children play in a music corner without interventions, and compare.

6.5. Outcomes of the research

The empirical research work of this investigation is rather unique: no one has looked into the effects of a professional musician on children’s free musical play before. Beit on a modest scale, this research has contributed to new knowledge. Firstly, indicators of free musical play, either derived from literature or grounded in theory, led to a useful observation schedule which can provide for a rich overview of young children’s free musical play. This instrument can be used by classroom teachers, wanting to observe children on their free musical play, enabling them to establish (any) development. On a larger scale, it can be used by developmentally orientated primary schools/educationists, who might want to introduce a music corner in their educational offer and need instruments to found this on. Secondly, operative theories on facilitation and guidance of free musical play have been inventorized and brought together in a useful, chronological overview, which enables teachers to facilitate such form of play.
Finally, through this research, tangible effects of a professional musician’s interventions on children's free musical play have been established. This expands professional musicians’ possibilities for employment in the educational field. Furthermore, it might give an impulse for a (better-quality-) cooperation between schools and artists/cultural institutions.

6.6. Final thoughts

I would like to conclude this thesis with two final thoughts. My first consideration concerns one of the outcomes of this study: the increase of cooperative play. Those interventions that affected children’s free musical play, led to an increase of cooperative play. One can ask oneself whether this is something we should aim for? Do we consider making music together is the highest attainable? Is it something that is to be preferred to solitary or parallel play? Music can be a social event, but does not necessarily have to be so. Playing alone and being engrossed in the magic of music, can not only bring joy, but enrich children's lives as well. This might be at odds with the idea of a joint music area.
So, perhaps interventions should aim for solitary musical activities as well.

My last consideration is in line with the former, as it concerns the role of music in children’s daily lives. Music can enrich children's lives, by them making it (with positive effects on their motorics, their creativity, social skills and imagination) and by listening to it. To be inspired by a real life professional musician with skill, can make an important contribution to this enrichment, and enhance their school experience. Teachers should be really equipped to make use of-, and work with this type of professionals.

*Professional musicians, working in cooperation with classroom teachers can enhance children’s musical development.*
References


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Vygotsky, L. (1933) 'Play and its role in the mental development of the child' *Voprosy Psikhologii* 1966-6 Internet WWW page at URL: http://www.marxists.org/archive/vygotsky/works/1933/play.htm (accessed 24/12/12)


Appendices

Appendix A: Letter of consent parents
Appendix B: Index of musical instruments used in the music corner
Appendix C: Observation schedule
Appendix D: Verbatim transcriptions interviews musician and classroom teacher
Appendix E: Verbatim transcription interview children
Alkmaar, 23 February 2012

Dear Parents,

My name is Christiane Nieuwmeijer and I am – besides mother of a former pupil of this school-, a music teacher at the Teacher Training College Alkmaar and at the Utrecht Conservatoire. At this moment, I study at Roehampton University in London, doing a Master in Applied Music Education. One of the modules of this Master is the execution of a piece of research within an educational setting.

For this module, I aim to investigate the musical development of young children, and find out to what extent a live musician can effect this development. Your child’s classroom teacher has agreed to participate in this investigation. This means I would like to organise some musical activities in your child’s class. This could be a live musician, who is going to make music with the children, or children playing with musical instruments in a music corner. Aim of this research is to find out more on how children play with musical instruments when they are being left alone, and how a live musician can effect this type of play.

Hereto, I would like to videotape the group activities of this research, for observational- as well as study purposes. Therefore, your child might be seen on screen. Recordings will not be made public and children will remain anonymous.

If you are happy for your child to participate in this research, please sign and return the slip below.

In case you might have any questions, or would like to be kept informed on the course of this research, please contact me on the following e-mail address: christiane.nieuwmeijer@planet.nl.

Thank you very much!

Yours sincerely,

Christiane Nieuwmeijer

________________________________________________________________________

I am happy for my child ............................................ to participate in the research outlined above.

Signed Parent/Guardian: ............................................................................................................
Appendix B: Index of musical instruments used in the music corner

- Four drums, ascending in size
- Matching mallets
- One large cymbal
- Matching mallet
- A set of five boomwhackers
- One beat stick
- One triangle
- Matching mallet
- One alto carillon
- One alto xylophone
- One woodblock
- A pair of bongo’s
### Appendix C: Observation schedule

#### Observation schedule

<table>
<thead>
<tr>
<th>Event number:</th>
<th>Observer:</th>
<th>Child:</th>
<th>Date:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>BEHAVIOUR</th>
<th>TIME in minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0/5</td>
</tr>
<tr>
<td>Does not participate</td>
<td></td>
</tr>
<tr>
<td><strong>Solitary play</strong></td>
<td></td>
</tr>
<tr>
<td>Makes music alone, does not share</td>
<td></td>
</tr>
<tr>
<td>Experiments with sound combinations</td>
<td></td>
</tr>
<tr>
<td><strong>Parallel play</strong></td>
<td></td>
</tr>
<tr>
<td>Plays next to peer, with a minimum on social/musical interaction (i.e. eye contact)</td>
<td></td>
</tr>
<tr>
<td>Observes others, but does not participate consistently</td>
<td></td>
</tr>
<tr>
<td>Listens to others without playing an instrument</td>
<td></td>
</tr>
<tr>
<td><strong>Cooperative play</strong></td>
<td></td>
</tr>
<tr>
<td>Interacts with others musically</td>
<td>positive</td>
</tr>
<tr>
<td>Interacts with others verbally</td>
<td>positive</td>
</tr>
<tr>
<td>Assists and/or demonstrates to peers</td>
<td></td>
</tr>
<tr>
<td>Shares instruments/materials with peers</td>
<td></td>
</tr>
<tr>
<td>Imitates musical ideas from peers, as:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>beat</td>
</tr>
<tr>
<td>Sings with others</td>
<td></td>
</tr>
<tr>
<td>Makes up and communicates rules/ideas for musical play</td>
<td></td>
</tr>
<tr>
<td>Makes up and communicates stories for musical play (dramatic play)</td>
<td></td>
</tr>
<tr>
<td><strong>Manipulative/exploratory play</strong></td>
<td></td>
</tr>
<tr>
<td>Examines and manipulates instruments</td>
<td></td>
</tr>
<tr>
<td>Non-musical use of instruments</td>
<td></td>
</tr>
<tr>
<td>Changes instruments</td>
<td></td>
</tr>
</tbody>
</table>
Combines different instruments

**Motric play**

Uses specific parts of the body in response to various elements of music

Moves to music played by himself others

Imitates movement of peers

**Musical behaviour in general**

*Singing:*
sings, chants to music played by others himself

Plays simple accompaniment ideas while singing

**Playing:**

<table>
<thead>
<tr>
<th>Volume</th>
<th>Plays loud</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plays soft</td>
</tr>
<tr>
<td></td>
<td>Alternates loud and soft</td>
</tr>
<tr>
<td></td>
<td>Plays/experiments with a crescendo</td>
</tr>
<tr>
<td></td>
<td>Plays/experiments with a decrescendo</td>
</tr>
</tbody>
</table>

Beats

<table>
<thead>
<tr>
<th>Beat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responds through movement to basic beat</td>
</tr>
<tr>
<td>Maintains a steady beat when playing</td>
</tr>
</tbody>
</table>

Rhythm

<table>
<thead>
<tr>
<th>Rhythm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternates fast/slow</td>
</tr>
<tr>
<td>Can improvise a (simple) rhythm</td>
</tr>
<tr>
<td>Uses smaller body movements, such as hand clapping, to express rhythmic ideas</td>
</tr>
<tr>
<td>Reproduces short rhythmic patterns with (increasing-) accuracy</td>
</tr>
</tbody>
</table>

Melody

<table>
<thead>
<tr>
<th>Melody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is beginning to associate up-down, high-low, with right-left directions when playing xylophone or metalophone</td>
</tr>
<tr>
<td>Can improvise a (simple) melody on instruments using pitch sets</td>
</tr>
<tr>
<td>Reproduces short melodic patterns with increasing accuracy when singing or playing</td>
</tr>
</tbody>
</table>

**Other:**

Exhibits musical frustration

Uses musical vocabulary to describe sounds

Plays instruments technically incorrect

Uses instruments in a socially inappropriate manner

Plays with something other than instruments

Asks an adult/teacher for help

Asks to stop/withdraw
Appendix D: Verbatim transcriptions interviews musician and classroom teacher

Interview 1: Interview Musician after his first intervention

Interview 2: Interview with the musician after the collaborative intervention

Interview 3: interview with the classroom teacher after their collaborative intervention

Interview 1: Interview Musician after his first intervention

Question 1
What was the aim of your intervention/rationale for this content?

Response
My intention was for the children to become aware of the difference between high and low sounds. I also wanted them to become acquainted with the correspondence between the shape of the instruments and their sounds (i.e. large equals low, small equals high). This by sight, as well as by ear. 'Timbre' might be a little far-fetched, but the distinction between high and low at any rate. I was especially keen on them to hear the difference; visual recognition was of secondary importance. Therefore I hid the instruments, by means of a game. However, as it turned out, this made it to complicated for the children, as they found it hard to distinguish the direction the sound was coming from. Furthermore, I didn't bank on the problems my choice of instruments would bring about: the diversity of the chosen instruments (boomwhackers, drums, small percussion instruments, as well as a xylophone) made it even more difficult for the children to recognize them…. I hadn't realised that this difference in appearance and timbre would be confusing for children.

Question 2
How did you prepare this intervention?

Response
Using the instruments from the music corner for this activity, was something I had planned way in advance. I thought of visualizing this concept, even though visual recognition of the instruments was of secondary importance to me. This visualisation is something I use frequently in my work as a music teacher in a school for children with special needs: I set a range of boomwhackers in a row for instance, and get down on my knees and play them something. I hit upon this idea when I heared which instruments would be used in the music corner. I realised then I had to keep it simple, i.e. I didn't want it to be to specific for the children (e.g. demonstrate and recognize multiple sounds on a single instrument). Concerning the high-and-low part, for me as a percussionist it would be rather obvious to do something with drums and rhythms, but I considered that to be too limited. Besides that, I also wanted to see whether children of this age were abled to do something like that – just for my own interest...
Question 3
What is your rationale on this specific approach?

Response
At first I looked for a song about high and low, but I couldn’t find such a song. Then I thought: well, let them just try and have them have a go at it. Subsequently, I made up the hiding-part; in that way I could check whether they were really able to discern the different sounds. Furthermore, to me the hiding of instruments seemed an enjoyable and exciting activity for children this age.

Question 4
How did you experience the intervention?

Response
I didn’t expect the children to be that visual! Furthermore, I think it would have been better if I hadn’t used instruments from different groups, as it made things more complicated. Something I really missed was a group activity; something the children could have done together, like singing, or doing something rhythmic. I could have used it to help the children remember things about high and low. I also think there was too little to do for them, since I talked a lot! I told them all kind of things about high and low, which they found interesting (which I know, because they were attentive and quiet). But the only thing there was to do for them was the ‘mice and elephants-game’, and that was about it! It could have been more...
Looking back, it proved to be harder than I thought it was going to be. During my teaching, I did notice I missed something, like a song or movement game, or some other activity to make it last. This is something I should do next time. I think I worked this way because it made me feel safe, since I was in control all the time. I expect the future teaching together with the general teacher to be easier, as keeping order and overview turned out to be something quite difficult with all these little ones swarming around you...

Question 5
What do you think the children as a whole have learned from this intervention?

Response
I think they’ll know by now that a small instrument produces a higher sound than a big instrument, and that they’ll have this association whenever they see instruments. A number of children, especially the older ones, will be able to tell this difference by now. The younger ones however, might still associate high and low with ‘high in the sky’ and ‘down below the ground’, instead of with high and low sounds....

Question 6
Which aspects of the intervention do you expect the children to transfer to their free musical play and why?

Response
As a matter of fact, I didn’t take that into account at all... I assumed the children to have some knowledge of-, and experience with the instruments, therefore I didn’t think that was a task for me. But if I have to think of items from my activity that would be
transferable to the music corner, I’d have to say that isn’t easy - because of the topic I chose. It was rather abstract for children this age. At the time I carried out the activity, I had the idea they understood what I meant about high and low, but whether they will transfer this to their play I’m not sure. I presume that, initially, they might want to try out the instruments. Later they might do something concerning high and low, since I specifically demonstrated this and have it come to sound. So it is conceivable for them to have a little conversation, such as: ‘Now you take a high instrument, the small one, and then I’ll take this big, low one!’ and form a small orchestra together.?

**Interview 2: Interview with the musician after the collaborative intervention**

*Planning/Development of the intervention*

**Question 1**
*What was the aim of your intervention? What was your rationale for this content?*

**Response**
We wanted the children to learn to look at-, and pay attention to a conductor, and for them to be able to be silent during the singing and playing when necessary. We also wanted the children to react instrumentally on certain phrases of the song. It was a kind of reaction game.

**Question 2**
*How did you experience your collaboration in the realization of the content of this intervention? (related to aims, mutual expectations, roles, knowledge sharing)*

**Response**
‘At first, our cooperation in the development of the intervention felt somewhat uneasy: ‘what is it that you want, what do I want’? The classroom teacher came up with a song. I disagreed on that particular song, because it was about how difficult it is to make art. I didn’t want the children to think it’s hard to make art, as I think everyone is an artist in his/her own way. But as the classroom teacher wanted something to match the current topic/theme, we agreed on another song. Nevertheless, it was my explicit intention for the children to use musical instruments, because I had experienced my first intervention to be too much teacher centered, and I wanted them to be active. Therefore I thought of using five benches, and the children/instruments to be divided over them. In order to do so, I devised two more verses to the song - to match the number of benches. Next, the classroom teacher came up with the idea of pictures to support the verses, which we adopted as well. Since I did not want the children to talk during the music making, we also agreed on using a conductor.

The classroom teacher’s input was mainly on the organization of the intervention, as well as providing for the theme and some particular ideas. I could notice she has little experience with music education, as she did not contribute any specific music didactical knowledge or experience herself– this had to come from me. In her words:’ on that specific part I totally rely on you, I am not versed on that at all!’
**Course of the intervention**

**Question 3**  
*How did you experience the collaboration between you and the musician during the course of the intervention? (How do you feel about the course of the intervention?)*

**Response**

‘I experienced our cooperation during the intervention as being very instructive, especially concerning the choice of the topic, as well as her insight and knowledge of the children’s level. During the intervention, by means of her actions, I also discovered more about the considerable differences between 4-, 5- and 6-year olds. Furthermore, the way the teacher works with children (concerning aspects as correction or tranquility) was inspiring to me as well. Some of the things she did, I even tried in my own classes later that week! Finally, because of her input, the children were more involved. I think this was the result of her approach to this intervention: certain parts of it being familiar to the children, but new aspects brought in as well. Such variation appears to be very important.

I did hope however, the classroom teacher would give me some feedback on my actions; on the way I structured the intervention for example, or that she would provide me with some didactical tips for this specific age group. But I experienced that, - from both a music didactical, as from a musical point of view-, I cannot expect too much of her.

**Question 4**  
*What do you think the children as a whole have learned from this intervention?*

**Response**

I think the children picked up a lot of things! Making music for example, and doing so under guidance of a conductor - as they experienced with the classroom teacher as a conductor. Furthermore, they learned to sing a song. Linked to that song, they also discovered that music can be made with the help of notation. The complementary drawings to the song made by the classroom teacher, proved to be very instructive and illustrative.

**Question 5**  
*Which aspects of the intervention do you expect the children to transfer to their free musical play and why?*

**Response**

None specific, to be honest, as it did not have my focus...
Interview 3: interview with the classroom teacher after their collaborative intervention

Question 1
What was the aim of your intervention? What was your rationale for this content?

Response
‘The current theme is ‘Art – artists’. Therefore I wanted this intervention to fit in; to integrate in the theme. I also wanted it to be something really sparkling this time, and make sure all the children were actively involved in music making. After the musician’s first intervention I wasn’t too sure about that…’

Question 2
What do you think about/How do you feel about/what can you tell about your collaboration in the realization of the content of this intervention? (related to aims, mutual expectations, roles, knowledge sharing)

Response
‘Since I was not really happy with the musician’s first intervention and his capability to assess the children’s level, I came up with a 3 verse-song myself. It’s a song the children sang before, therefore I knew they liked it and were able to sing it. I also wanted to use musical instruments. Adding up to this song, the musician suggested deviding the children up on five benches, and add two verses up to a total of five. Hence we could distribute the musical instruments over five benches and -later on- have them circulate per bench. I considered that as a good idea. In order to support the song’s lyrics I contrived a pictural representation of each verse. These pictures might also keep the children motivated: those children that already read, are challenged to look at the pictures and read, whereas the youngest children are supported by them when changing bench and instruments. Finally, I hoped the children might use these pictures in the music den later on, in their own music making.

In conclusion, the musician agreed to write the whole thing up and to devide tasks. He was going to play the guitar anyway, because I don’t play a musical instrument.’

Giving the lesson (intervention)

Question 3
How did you experience the collaboration between you and the musician during the course of the intervention? (What do you think of the course of the intervention?)

Response
‘That was really fun! We got in contact during the development of the intervention. I came up with the idea, and he was inspired by it. In relation to any ‘sharing of knowledge’ or mutual inspiration, I must say the musician’s (musical-) attribution to the realization of this intervention was fairly minimal, and therefore of little value to me. I cannot state that I learned from him in any way. He did play the guitar though – that’s something I’m not capable off!

The cooperation between us during the intervention itself was a little awkward: these are ‘my’ children, but he came in as an expert and was our guest …This felt somewhat unusual.’
Question 4
What do you think the children as a whole have learned from this intervention?

Response
(..thinks...).. ‘They learned to sing a song, and learned to play an instrument on a particular phrase in that song (‘rom, bom!’) and be silent on others. Some children did that very precisely. The children also experienced that music can be made with the help of drawings; drawings that can be ‘read’ - even if you cannot actually read yourself yet.
I also believe the children experienced what it is like to play in an ‘orchestra’, with someone being in charge (director), and that you are supposed to look at that person to know when and how to play. Finally, the children had to listen to each other; you’re not supposed to fiddle about with your drum. That’s ok otherwise, but not when you’re making a piece of music together. It doesn’t matter whether you’re musicoetal or not, we all play together. And that’s what happened too, as it went very well!

Question 5
Which aspects of the intervention do you expect the children to transfer to their free musical play and why?

Response
...The conducting part, and the song. I think they might use the rhythm part in the song, to be played on instruments. The drawings are something I expect the children to use as well. That turned out to be more difficult then I expected however, as these were four strong headed children, and cooperation turned out to be not that easy for them!
Appendix E: verbatim transcription of the interview with the children (after the 1st intervention)

Situation

About twenty minutes after the childrens’ playing session in the music corner, the researcher has set up the video recorder in another, empty classroom. The children and the researcher sit around the camera. Together they view the takes from their music making session. The interview was recorded with another camera.

Interview

R: ‘Are you consulting with one another?’
H: ‘Yes, whether to play soft or loud…’
R: ‘So you were discussing on when to play loud and soft then?’ (looks around as to invite the others to comment)
N: ‘Yes! I said: ‘A! You have to play more softly!’

Ab. ‘Heeeeyy!! I didn’t put TWO sticks in that?’
R: ‘Does the film show you putting two sticks in there?’
Ab.: ‘Yes, but I only put one stick in!
R: ‘Do you remember why you put the sticks in the instrument?’
Ab. ‘Because it gave a funny sound, as you can shake it like this’ (demonstrates a shaking movement)
R: ‘And what kind of sound does it make?
Ab. ‘No idea!’ (drops himself on the floor)
R: ‘Hey! I can see everyone of you taking an instrument to start with. How did you make your choice for that instrument?’
H: ‘Well, I always take the iron thing and N. grabs…
N: (comes in between:) ‘H. takes an iron xylophone, and I always take the wooden one!’
R: ‘And A.: what did you take?’
Ab. ‘The bongos!’
Ar. ‘And I take the…the…pssssss-pssssss-pssss (moves as if to play the cymbals) – haha- that sounds a bit like a pee-pee!’
Ab. ‘The cymbals, the cymbals!’
R: ‘Why do you take them, Ar.?’
Ar. ‘Well, just because….’

The children become restless and start rolling around on the classroom’s floor

R: ‘Do you ever change instruments?’
N: ‘No – not today’

R: ‘I notice Ar. often takes a standing position?’
H: ‘Yes! Ar.’s head has been chopped off on the film!’
R: ‘Why is that, Ar., that you are standing a lot?’
Ar. ‘I don’t know….’
R. ‘Now I see Ab. playing the bongo with mallets’
N: ‘You’re not supposed to do that, actually!’
R: ‘What do you think, Ab.?’
Ab. ‘…..you can do both…..’
R: ‘Did you ever play the bongos N.?’
N: ‘Yes, but only for a short while, because I don’t like it as it tickles my hands!’
Ab. ‘I played the wooden xylophone once, for a moment. But I would like to play the iron one, though…..’
R: ‘Who usually plays that one?’
H/N: ‘H.!!!’
R: ‘Would you like to change instruments with her than, Ab.?’
Ab. ‘Noooooo0000000000....’
R: ‘Ar., how do you like playing on the bongos?’
Ar. ‘Nice ....... Dombo, dombo, dombo’..

Now all children have lost contact with the researcher and roll on the floor. The researcher closes the interview by thanking the children, and has them pressing the ‘off’-button on the camcorder.