SOCIAL INCLUSION AS A THERAPEUTIC AND EDUCATIONAL FACTOR IN A MUSIC THERAPY SETTING

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Master's Thesis

Music Therapy

Department of Music

23 June 2016

University of Jyväskylä

JYVÄSKYLÄN YLIOPISTO

Tiedekunta – Faculty Humanities	Laitos – Department Department of Music
Tekijä – Author FELIX LOSS	
Työn nimi – Title Social Inclusion as a Therapeutic and Educational Factor in a Music Therapy Setting	
Oppiaine – Subject Music Therapy	Työn laji – Level Master's Thesis
Aika – Month and year MAY 2016	Sivumäärä – Number of pages 86

Tiivistelmä – Abstract

Inclusive approaches for children with special needs are applied in both the fields of music therapy and (music) education. In practice, inclusive music therapy groups consist only of children with special needs, whereas an inclusive kindergarten group for example may consist of typical and non-typical children, yet not in an actual therapy setting. Both practices hold explicit benefits for typical and non-typical children, however mutually exclusive of one another. The aim of the study is to explore the effects of social inclusion in a group consisting of typically and non-typically developing children within a music therapy setting. The focus lays on the therapeutic benefits for the special needs children and the educational benefits for the typical children. Furthermore, this study outlines the possibilities and limitations of the approach, and the possible implications for music therapy practice and in music education settings. Therefore, a group of three children, two typically developing girls and one boy diagnosed with Autism Spectrum Disorder (age between 4 and 7 years), received 18 music therapy sessions. Each session's structure and activities were planned, evaluated, and reorganized through an action research paradigm. The process was videotaped and three of the sessions (beginning, middle-phase, end-phase), were analyzed using a mixed methods approach of quantitative content analysis and qualitative descriptive interpretation analysis. Additionally, interviews of the mothers were taken and were analyzed using qualitative content analysis. Preliminary results show that the therapy for the boy with autism may have enhanced active pro-social behavior within and outside the therapy sessions, as well as having increased the social skills of the typically developing girls. Furthermore, musical and social goals could be targeted in both therapeutic and educational ways.

Asiasanat – Keywords

Social Inclusion, Music Education, Special Needs, Autism Spectrum Disorder, Music Therapy

Säilytyspaikka – Depository	
Muita tietoja – Additional information	

CONTENTS

1 INTRODUCTION

The value of music as art lies not only in its potential in entertainment or as cultural heritage, distractor, silence-filler, medium for emotions, opinions and political statements. Music is used as a teacher's tool in music education, as a therapeutic intervention in the health care system, and as a communication tool for people who cannot communicate verbally.

Since ancient times, music has been part of a holistic education. The positive effects of an early music education are wide in range and can also influence non-musical skills, social skills, and brain plasticity (see e.g. Chobert et al., 2014; Hyde et al., 2010; Kirschner & Tomasello, 2010; Putkinen et al., 2014). Music education for that matter does not necessarily mean to learn a certain instrument or to know about music history and theory, but can also include playing music with other people - in peer groups and classes - singing with each other and sharing the experience and form of communication.

The effects of music and music making are utilized in music therapy, for rehabilitation, psycho-therapeutic work, and work with individuals with special needs to maintain health (Bruscia 2014). Through music listening, active music making, improvising, composing and song writing, individuals are confronted with musical tasks and experiences to enhance physical and mental health, explore emotions or make contact with other participants. In work with clients with Autism Spectrum Disorder, like those who were part of this study, music therapy can offer unique possibilities compared to occupational or verbal therapy, which can be utilized by those of all age groups, especially concerning social skills and engagement (Thompson, McFerran, & Gold, 2013).

In general practice, music therapy is conducted in an individual or group setting, although individual sessions are more common. In contrast, early music education as it is offered in kindergarten, for example, is mainly done in peer groups and classes. The features brought by group settings will be reviewed later, but the positive effects of a group setting and dynamics thereof can also be and are utilized in a therapy session (Dies, 2003). Also, individual therapeutic work with children with special needs, for instance in kindergarten or at school, results in separation from the other children and from the group. This happens when therapists

come into the institutions and work one-on-one with the child that receives music therapy, in a separate room without other children. From an inclusive viewpoint, this practice might contradict the work of the educators, because it takes the child out of the peer environment and might foster the awareness of difference.

Social inclusion as such has different meanings and backgrounds within the fields of education, economics, sociology, and psychology (Labonte, 2004). In an educational context, the common application of social inclusion is to set children with special needs into the same learning environment with typically developing children and integrate them in a way what each member of the peer group is accepted equally (Mallory, 1994).

In this work, the clinical principals of music therapy, such as improvisation or musical interplays, shall be combined with the general positive effects of an early music education. The focus will be on the theoretical approach of social inclusion that already found its way into the special needs education practices during the past decades (Friend & Bursuck, 2012). In music therapy, however, this kind of approach has not been reported so far and thus seems to be a new angle towards the approach as well as the purpose of therapy and therapeutic interventions, because the therapy will be conducted with typically developed children. For the study, a group of four children was formed, consisting of two typically developing girls and two boys diagnosed with Autism Spectrum Disorder.

With social inclusion as the link, the children were to receive music therapeutic interventions and music educational tasks, with the aim of both typical and pathological children benefiting. The motivation behind this idea is rather simple: Music therapy could offer help and support for the children with special needs, in this case the two boys with autism. Music education and musicking has different positive effects on the development of young children (e.g. Putkinen et al., 2014; Kirschner & Tomasello, 2010). It seems to be an obvious strategy to put these groups together, to learn with and from each other and to learn acceptance, highlighting the commonalities rather than the differences. *Intervention* is an important part of music therapy, but it may hold a great potential for *prevention* also for individuals without a particular pathology. This potential shall also be explored further.

In the following section, a review of literature is provided, which covers the main ideas, theoretical approaches, and terms that are important for this study, such as special needs, early music education, or group therapy. After looking into the research questions, the method will be presented in detail. The study was designed as an action research paradigm, the therapy sessions were videotaped, and three out of 18 sessions were transcribed and analyzed using quantitative and qualitative content analysis technique. In the method section, the background of the participants will be introduced, and an overview of the sessions' structure will be given.

In chapter 5, the results of the quantitative and qualitative content analyses will be presented, as well as those of the follow-up interviews that were conducted with the clients' mothers after the therapy process had ended. The discussion section will refer back to the literature which informed the theoretical framework of the study, parallels and possible new implementations will be highlighted, and the results of the analyses will be discussed.

2 LITERATURE REVIEW

2.1 Special needs

Special needs is a term used in clinical diagnosis and includes individuals who need assistance due to different disabilities, physical impairments, mental, or behavioral issues (Friend & Bursuck, 2012). Furthermore, as Friend and Bursuck (ibid.) stated, the range of special needs include learning disabilities, physical disabilities, ADHD, Autism spectrum disorder, Down's syndrome, and visual impairment among others.

During the past years, many professionals have begun to question the common routine of placing students who need more intensive services directly in a restrictive setting, for instance in a special education classroom (Fuchs, Fuchs, & Stecker, 2010). According to this, Friend and Bursuck (2012) summarize that "many educators now find that all or most supports for students with disabilities can be provided effectively in general education classrooms when teachers are prepared to work with such students and related concerns are addressed" (p. 6). The more and more common philosophy of special needs education therefore is that all learners are full members of their schools and in their classrooms and they are the responsibility of all educators within the education system (Frattura & Capper, 2006; Skilton-Sylvester & Slesaransky-Poe, 2009). The study presented here should be read with this philosophy in mind.

Because both children with special needs in this group were diagnosed with Autism Spectrum Disorder, a more detailed description of this developmental disorder shall now be provided: Autism Spectrum Disorder (ASD) is a brought term that includes Autismn, Asperger's syndrome, childhood disintegrative disorder, and pervasive developmental disorder (not otherwise specified), which all four are characterized by atypical development of social skills, verbal and non-verbal communication (American Psychological Association APA, 2013). Atypical behavior means that certain developmental milestones, such as speaking, reacting to facial expressions of the mother and so forth, are not reached at the same time, or to the same degree, as would be the case for typically developing peers. According to the American Psychological Association (2013) children and other individuals on the autism spectrum show, for example, deficits in responding appropriately in conversations, reading nonverbal

interactions, or having difficulties building friendships appropriate to their age. They furthermore may be overly dependent on routines, highly sensitive to changes in their environment, or intensely focused on inappropriate objects or behaviors. All those factors may or may not occur on different levels of severity. However, to be diagnosed with ASD, the symptoms must be detectable around the first two years of life.

The reasons for autism are not fully understood but are assumed to be both neurological and genetic, as the brain structure may be a different one compared to typically developing children to begin with and therefore also develops differently during processes of learning (Siegel, 2003).

According to this, as well as an early diagnosis that is supported by the APA, an early intervention in the treatment of children with ASD is crucial. In treating children with autism and other developmental disorders, the brain's ability to be reshaped easily by good or bad experiences is taken advantage of – the earlier, the better. As Siegel (2003) puts it: "Early intervention takes advantage of plasticity by giving the child's brain increased exposure to good experiences (that is, enrichment). Enrichment consists of those things we have reason to believe will best promote reshaping to enable more typical functioning." (p. 23)

2.2 Music therapy

Bruscia (2014) offered a working definition of music therapy for the first time in 1989, which he changed slightly in 1998: "Music Therapy is a systematic process of intervention wherein the therapist helps the client to promote health, using music experiences and the relationships that develop through them as dynamic forces of change" (p. XXII). However, in the third edition of his book "Defining Music Therapy", Bruscia (2014) gathered definitions of music therapist colleagues from all over the world, systematized and analyzed them to find that there is no consistent definition of Music Therapy. In this analysis he found three categories only for the predicate noun in a possible definition of music therapy: Tool schema (e.g. "Use", "Application", "Collection of Techniques"), Process schema (e.g. "Process", "Approach", "Form", "Framework") and Identity schema (e.g. "Practice", "Discipline", "Profession", "Theory") (ibid., p. 25). He made this analysis for all components of a possible definition.

In comparison, the American Music Therapy Association (n.d.) defines music therapy as follows: “Music Therapy is the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program” (see webpage: http://www.musictherapy.org/about/quotes).

For this work, I will lean on Bruscia’s (2014) definition of music therapy as presented in the beginning of this section, because it is systematically constructed, peer reviewed, and applicable.

As in section 2.1 discussing special needs, a closer look at the autism spectrum disorder and the role of music therapy in its treatment shall now be taken. Music therapy can help as part of the curriculum of different practitioners, clinicians, and educators, and to support health and development. Based on the clients’ needs, music therapy interventions target social, communicative, motor/sensory, emotional and academic/cognitive functioning, or music skills in individuals with ASD (American Music Therapy Association AMTA, 2015).

As stated earlier, the range and severity of ASD is broad, the interventions in music therapy take place after a thorough assessment of the client. Furthermore, that also means the applied techniques and interventions, which include different activities as well as different approaches (e.g. behavioral, psycho-dynamic, DIR/Floortime Model, Nordoff-Robbins Music Therapy, etc.), are as broad as the spectrum (Whipple, 2013). This means that a variety of evidence-based strategies such as prompting, reinforcing, pictured scheduling and so forth are applied with music therapy techniques, e.g. singing/vocalization, instrument playing, musical improvisation, movement/dance, and listening among others (AMTA, 2015). These techniques and strategies support the client in the identified and targeted areas, according to the initial assessment. In a meta-analysis of the effectiveness of ASD treatments in early childhood, Whipple (2013) concluded that a music therapy treatment for young children with ASD is very effective for improving communication, interpersonal skills, personal responsibility, and age-adequate play. Furthermore different studies (Kalas, 2012; Katagiri, 2009; LaGasse & Hardy, 2013;, cited in AMTA, 2015) showed that music therapy interventions support and elicit joint attention and enhance auditory processing, as well as other sensory-motor, perceptual/motor, or gross/fine motor skills, and afford the identification

and appropriate expression of emotions. It becomes apparent that music therapy supports the important areas of delayed or interrupted development of children with ASD and also shows that early interventions especially can add a crucial quality to the treatment outcome.

Targeting the needs of children with ASD in terms of social engagement, pro-social behavior, and socialization in general is done in different ways. Apart from one-on-one therapies with client and therapist, family therapies have proven useful to possibly increase social engagement at home and within a community (Thompson, McFerran, & Gold, 2013). However, what Thompson and colleagues (2013) also stated is that the family-centered music therapy approach in their study did not support language or general social skills outside the family or community setting. Nevertheless, the researchers point out these key messages: "Active involvement in music-making provides unique opportunities for social interaction for children with ASD; therapies that include the whole family have the potential to support both the skill development of the child and the quality of the parent-child relationship" (Thompson, McFerran, & Gold, 2013, p. 850).

2.3 Group therapy

Group therapy has its roots at the beginning of the 20th century and still is a widely used intervention in different fields of psychotherapy, as well as in social work and community health care (Dies, 2003). Even though the reasons for group therapy at the beginning were of a more economical nature, as Dies (ibid.) further states: "Three practical advantages of group psychotherapy were regarded as most central at that time: expediency, cost-effectiveness, and staff efficiency" (p. 516). Shaffer and Galinsky (1989) however, summarized positive effects of the group setting, apart from the economical-pragmatic view of the early clinicians in that field: clients get the possibility to recognize the fact that they are not alone; to discover individual resources for listening and understanding; experience and demonstrate patterns of interpersonal relating; peer support and safety through this support; and the avoidance of an increasingly dependent patient-therapist relationship like in one-to-one therapy.

So, compared to individual therapy, a group setting also provides positive effects on different personal levels or dimensions which are often summarized in these three dimensions, perspectives, or windows (Ahonen-Eerikäinen, 2007): the individual in the group

(intersubjective window), the members with one another (interpersonal window), and the group-as-a-whole dimension (group matrix window) (Ahonen-Eerikäinen, 2007, p. 31; Foulkes, 1964, p. 43; Ashbach & Schermer, 1987, pp. 129– 155).

Burlingame and colleagues (2002), who took the cohesion of a therapy group as a prediction of the therapy outcome, talk about different dimensions of this relationship as member-to-group, member-to-member, and member-to-leader being primary relationships, and leader-to-group, as well as leader-to-leader, being secondary relationships (Burlingame, Fuhriman, & Johnson, 2002). Findings of their study were, for instance, that positive primary relationships are more likely to affect a positive outcome in the whole therapy and vice versa; negative relationships are related to a poorer outcome (ibid.). These findings might underline the positive effect of the group setting as such on the outcome of the therapy for the individual members of the group, as proposed above. However, some researchers starting from the 1980s (Fuhriman & Burlingame, 1994; McRoberts, Burlingame & Hoag, 1998; Piper & Joyce, 1996; Smith, Glass & Miller, 1980) have proposed that group psychotherapy is just as effective as individual therapy. Yet, due to the fact that the outcome of individual therapy is as affected by the client-therapist relationship (Horvath & Bedi, 2002) as that in a group session as shown earlier, this is not really surprising. Nevertheless, it shows the multidimensional levels of a group therapy setting, where the positive, as well as the negative, effects of group cohesion have to be taken into consideration to be able to do beneficial work for all participants. Furthermore, these multiple levels of group therapy offer different possibilities compared to those in individual sessions, and therefore could be useful for clients and patients who, for instance, feel more comfortable in a group setting.

Indeed, these aspects apply in music therapy as well (Ahonen-Eerikänen, 2007) and the group setting is becoming a more and more important part of therapeutic treatment, especially in terms of music therapy for children and adolescents (Grogan & Knak, 2002). Grogan and Knak (ibid.) found reasons for this in their own practical work at a child and adolescent mental healthcare service center: “These developments are not only because of pressures to see increasing numbers of children, but also because of a growing awareness within the team that group work had much to offer” (p. 203). One of these “offers” – but at the same time a task for the therapist – might be, that children or adolescents be given a place in a group of peers, that no one will take away from them during the therapy, Grogan and Knak (ibid.) went

on. In working with growing individuals who might suffer from different kinds of mental, developmental, or social behavioral issues and so forth, having a place within a group could be a therapeutic factor.

2.4 Early music education

Early music education as a group setting in e.g. kindergartens, schools, and music schools, has a positive effect on different levels for the participating children, as proposed by Kirschner and Tomasello (2010): "[…] joint music making among 4-year-old children increases subsequent spontaneous cooperative and helpful behavior […]" (p. 254). This goes hand in hand with Hagen and Bryant (2003), who pointed out that group music making, but also dancing together, shows and develops internal stability and the group's ability to act as a collective, which is important in establishing meaningful relationships.

Furthermore, the recent findings concerning neurological changes in musically trained children support the application of an early music education: Hyde and colleagues (2010) found improved finger-motor skills and better performance in melody- and rhythm tasks in one of the first longitudinal studies with children. However, they could not find an improvement in non-musical skills. Other recent studies (Chobert et al., 2014; Kraus et al., 2014; Putkinen et al., 2014) found significant changes in the plasticity of different brain regions in children with longer-term musical training (between 12 months and 5 years), improved speaking skills and abilities to distinguish more complex auditory stimuli.

Other studies furthermore revealed correlations between early music education or musical training and non-musical skills. A study by Schellenberg (2004) for instance showed that children who received musical training (either keyboard or voice lessons) had a greater increase in full-scale IQ than the children from the control group, who did not receive musical training. Moreno and colleagues (2011) randomly assigned children to a music or visual arts training group. After 20 days of training, only the children from the musical training group showed enhanced verbal intelligence and performance in an executive-function task (ibid.).

When first assigned to these studies, the children were in an age between 5 and 7 years, what emphasizes the effect of music education especially in an early age. Furthermore, they

showed the influence of music making on the structural plasticity of the brain and the effects on brain regions from which children with certain disabilities might also benefit among others. Apart from this, it is known that fetuses are already capable of hearing at the halfway point of the pregnancy (Brierley, 1994), which means that sounds, voices, and music can already be perceived by the unborn baby. Brierley (ibid.) furthermore points out that because of this ability, sounds and music are a crucial stimulus in the development of the child's brain.

To include, the idea of the integration of education into music therapy is based on the positive influences of early music education, as described above. Especially the described impact on social behavior is a main point that could be used as an active intervention factor for music therapy, parallel to the education work.

2.5 Social inclusion

Depending on the field and theoretical approach, there are several different definitions for "inclusion". In the (socio-)economic field, social inclusion and exclusion are an issue in western welfare states under modern capitalism and neo-liberalism, because the excluding mechanisms in these systems are quite wide (Labonte, 2004). The economic participation, which also should mean the independence of the individual from the welfare states' institutions, is the crucial point in this field (ibid.).

Inclusion and exclusion in a social scientific context is about a social participation in one's environment, which is closely related to an economic participation, but the emphasis is on social relations and structures (Kirsch, 2006). Seen in this context, the critical question Labonte (2004) states - "How does one go about including individuals and groups in a set of structured social relationships responsible for excluding them in the first place?" (p.117) - reveals one of the problems often discussed about the topic on inclusion/exclusion in modern science.

Different angles and ideas, yet probably not a fully satisfactory answer to this question, might bring the view away from the macro- to the meso- and micro-level of social inclusion and exclusion. This would mean, from this work's point of view, the possibilities and mechanisms of education and also therapy within a small group of people.

Social *integration* has a wide range of differing definitions and features in the field of education and in working with disabled or disadvantaged children. These areas are united by the common factor that children with and without disabilities are placed in the same environment, setting, and classroom as so forth (Odom & Diamond, 1998). The concept of *inclusion* however adds another important point: According to Mallory (1994) a successful inclusion can be stated as the "theoretical, social and curricular means for assuring that all children are fully accepted members of the learning communities in which they participate" (p. 58). That means it is not only about giving the possibility of being in the very same environment, but about an active partaking in a group of people within this environment. This makes the crucial difference between "integration" and "inclusion". A disabled child can be with non-disabled children without belonging to the main peer group of the "healthy" children but with both parties probably benefiting from this setting. However, an actual peer interaction is a crucial factor in the socialization and development of young children (Kemple, 2004), as shown in detail later on in section 2.6.

The question of inclusion/exclusion is asked in many scientific fields, from economics to the humanities. It often seems to come down to a functioning economic autonomy of the individual, as shown above. But economic participation, and therefore freedom, is the product of many parts, which are also visible in the inclusion process. Education, as part of social inclusion, can be seen as the foundation of an economic independence in later life, as it is mainly important in job seeking. An early social inclusion, not only an integration for this matter, can emphasize and amplify education and learning – as discussed in eralier sections of this review – through the utilization of peer learning and group settings.

Therefore, it could be stated that the function of social inclusion is to tear down physical, social, political, and economic borders of society as a whole through the active inclusion and participation of individuals and groups.

2.6 Peer interaction and learning

Giddens (2006) briefly defines a peer group as that consisting of people of a similar age or status. Peer interaction and learning is seen as a crucial part of this work and is considered a useful tool in the social inclusion hypothesis in this approach. In fact, "the role of interaction

in learning is an issue of obvious relevance to education as well as to psychology" (Light & Littleton, 2003, p. XV). Highlighting and discussing this link between education and psychology, or more precisely cognitive development, is one of the aims of this work.

Peer interaction therefore is not only a factor in learning and achieving skills; because of parents' different economic circumstances, children are generally in group care environments much longer nowadays (Kemple, 2004). So, the simple need for more group-centered day care, teaching, and occupational work stands as an argument on its own, however not meaning that it only has economic advantages. Apart from this, "peer relationships provide children with opportunities to interact with relative equals" (Kemple, 2004, p. 4). Because of this, Kemple (ibid.) furthermore points out that peer interactions challenge children in different situations but also give opportunities to play a wider variety of roles than do the situations in which they are interacting with adults.

Peer relationships e.g. in kindergartens, schools, sport teams and so forth, furthermore belong to the most important agencies of socialization for young children, next to the family and media (Giddens, 2006). The impact of the child's environment therefore should be taken into consideration and seems to be quite important. Giddens (ibid.), though from a sociological point of view, does not only speak about peer groups but more about age-grades of men for example and shows the importance of peer-group belonging throughout the whole life: "Those within a particular age-grade generally maintain close and friendly relations throughout their lives. […] Men move through these grades not as individuals, but as whole group" (p. 168). He also claims that, in the modern western world, the importance of peer groups and peer interaction is often highly underestimated, because the family - as primal agency of socialization - has a higher stance and influence in the social education of the children than in other, mostly smaller, societies and cultures.

3 RESEARCH QUESTIONS

To lead this research project, questions were formed in the process of this work. As this project has been conducted under an action research paradigm, the questions are also of a more practical nature and seek practical implications for therapists and/or educators.

As stated in the beginning, an inclusive approach as such is applied in different environments in the educational sector, both generally and musically. Positive effects of inclusive groups, as well as early music education in an education setting, were presented earlier. The novelty in this study, and its exploratory nature, is the music therapy clinic as the research setting and therefore the mainly therapeutic goals in focus; rather than an actual educational setting, the group takes place in a very different context. The research questions for this study are therefore quite practically oriented, with the first one being the most important:

What possibilities and limitations emerge from a group setting with special needs children and typically functioning children?

As a main question for this study, this one looks into the practically most interesting part of the study and asks about particular issues on a very general level, which is not as contradictory as it might seem at first. The exploratory character of the research question was found to be necessary to get as concrete as possible an idea about the general properties of this approach in order to understand the possibly wide range of prospects as well as the problems and constraints that may be particular to this setting. The purpose and benefit of this study might be the most crucial issue to address when it comes to further investigation of the topic, further development of the approach, or the ideas that may emerge from this study. The fact that the special needs child within the actual group was diagnosed with Autism Spectrum Disorder, makes this approach as such even more interesting, as the social inclusion part is possibly more difficult with this target group, due to the specific pathological issues. Therefore, this question gains even more importance. Most of all, however, this question should give new ideas and perspectives for both music therapy and education and therefore it seems to be a relevant question to ask.

It also brings up a more concrete question towards the same issue:

How do these possibilities and limitations influence the work with groups such as these?

This might be the next step towards a more comprehensive understanding of the dynamics and happenings within mixed groups. As the group of this study was rather small and in the end consisted of three children, it can be seen as a micro perspective into a bigger group setting, e.g. in a kindergarten where such mixes and dynamics might occur in the very same way but with bigger numbers. In other words, answering this question should be an attempt to project the possibilities and limitations of this group into a different context – theoretically.

Due to the different theoretical implementations within this approach, the question about the interventions and activities within the therapy sessions arises, which for that purpose is stated as follows:

What interventions are most effective for both children with and without special needs, considering the different theoretical approaches?

As will be shown later more in detail, the therapy sessions consisted of activities and interventions, which were taken from music therapy and from music education. This question basically cuts down to the heart of this approach, as the change between these different activities was also a crucial object in the action research process.

Apart from those three bigger questions, there are other points to consider and other questions to ask as well. The aforementioned, however, were found to be most crucial in terms of practical usefulness and shall be the frame for this research project and the discussion of the analysis.

4 METHOD

4.1 Action research

First of all, key concepts and principles of action research will be taken into account to eventually apply those to answer the research questions discussed above.

Action Research as such can be found in different fields, but has mostly been applied in the subjects of health care and education since the first approaches by Kurt Lewin (1946). As in many younger fields and research areas, it is hard to find a universal definition for this method. Koshy and colleagues (2011) however presented a review on momentarily used definitions and analyzed the content concerning key words and concepts, which include: “a better understanding, participation, improvement, reform, problem finding, problem solving, a step-by-step process, modification, and theory building” (p. 10). Even though there are several definitions, Waterman et al. (2001) analyzed different approaches of the subject as well and produced a comprehensive and applicable definition, particularly for the work presented here:

> Action research is a period of inquiry, which describes, interprets and explains social situations while executing a change of intervention aimed at improvement and involvement. It is problem-focused, context specific and future-orientated. Action research is a group activity with an explicit value basis and is founded on a partnership between action researchers and participants, all of whom are involved in the change process. The participatory process is educative and empowering, involving a dynamic approach in which problem-identification, planning, action and evaluation are interlinked. Knowledge may be advanced through reflection and research, and qualitative and quantitative research methods may be employed to collect data. Different types of knowledge may be produced by action research, including practical and propositional. Theory may be generated and refined and its general application explored through cycles of the action research process (pp. III-IV).

As Action Research itself is a practice-oriented form of research, the definition rather combines the different features of this method. According to this, Reason and Bradbury (2001) explain, that the primary purpose of Action Research is to gain knowledge for practical use, which can be applied by practitioners in their everyday lives. They furthermore claim that Action Research is mainly about working towards practical outcomes and creating new forms of understanding, because “just a theory without action is meaningless” (ibid., p. 563).

Waterman et al. (2001) furthermore point out the two apparently most crucial criteria for the practical work with this method: the cyclic character or process, which includes some kind of intervention; and the research partnership, which involves the researcher and the activity, to a certain extent, either in a passive or an active role.

An actual definition is indeed helpful to approach the idea of Action Research, but the method as such has different models and application possibilities, some more detailed and complex and others less so. Kemmis and McTaggart (2000) propose a spiral of self-reflective cycles, which consist of the following steps: Planning a change; acting and observing the process and consequences of the change; reflecting on these processes and consequences and then re-planning; acting and observing; reflecting, and so forth.

The focus of this Action Research is a group setting that combines music therapy and music education with the theoretical concept of social inclusion as a link. The “problem”, as mentioned in the definition presented by Waterman and colleagues (2001), that will be discussed is two-fold: the individual or group setting of children with special needs, disabilities or mental issues in music therapy as standard on the one hand, and typical children early group music education in educational institutions on the other hand. Even though early music education does not exclude children with special needs, as integrative kindergartens and schools work partly with this target group, the utilization of social inclusion in a music therapy setting is rather new.

The concept of the study is based on Kemmis and McTaggart’s (2000) spiral model, as was described above. A brief description of each step is outlined below.

Planning the change:

The researcher will choose either a certain approach or activity for the group music therapy, or combine elements of different practical approaches in a genuine model proposal. It should consist of elements from music therapy, for example group drumming/music playing, musical games, and music education, for example rhythm and melody games, and combined music learning games and so forth. This proposed model was informed by literature.

The goal of social inclusion should already be partly met through the group structure consisting of different children with various needs. The therapeutic and educational elements, such as games, singing, movement, music playing, and improvisation, should further foster the concept of social inclusion and at the same time work in the ways the activities themselves are conceptualized.

Acting and observing the process and consequences of the change:

The therapy sessions were video and audio recorded and the two co-therapists were taking personal notes about the sessions. As part of the action study, the researcher participated as a co-therapist in the process.

Reflecting on these processes and consequences and then re-planning:

The therapists met on a regular basis for reflection and planning. Each session was reflected on and discussed afterwards and utilized to prepare the following session under the premise of ideal change leading towards the best therapeutic and educational outcomes for the clients. The impact of the protocol changes were systematically reflected upon and, after analyzing and evaluating the session, these changes could be adjusted, changed or abandoned, depending on the efficiency of the intervention.

Action Research was chosen as the method for this study, because it was found to be most appropriate. The idea of this work, as proposed before, is the combination of at least three different fields or theories: music therapy, music education, and social inclusion. Taking social inclusion as a theoretical link between the fields of music therapy and education seems to be not too hard – in theory, that is. But to re-quote Reason and Bradbury (2001): "[…] a theory without action is meaningless" (p. 563). As there are no concrete manuals for clinical work in the proposed group setting, it is necessary to gather bits and pieces from each field so as to reach the best outcome. But, as the best possible outcome can only be aimed for not predicted, the circular principles of Action Research should be applied to bring the theory into action, find new angles on the topic, be inspired by the dynamics of the group, and find solutions to the problems pointed out before, as well as those problems which were not considered earlier.

Action research follows, as pointed out by Waterman and colleagues (2001), a cyclic pattern or principle. In this case, it means that during the therapy process, the ideas and plans that were made beforehand are followed, and the videotaped sessions watched after the sessions are done. After the activities and interventions have been brought to action, they are evaluated by the therapists. New changes and ideas emerge from this process, which restarts the cycle (ibid.) or the spiral (Kemmis & McTaggart, 2000) again. On a side note: after the first sessions it came clear that this kind of practice is rather common for the approach of the clinical internship, which served as the environment for the data collection for this very study. The action research as such will not be described in much detail in the upcoming parts of this work, because it represents a rather natural part of therapy work in general. As a paradigm however, it is important to elaborate about at this point.

Action Research, as stated by Meyer (2000), is a process involving people and social situations that have the ultimate aim of changing an existing situation for the better. Meyer (ibid.) claims furthermore, that Action Research is the bridge over the "theory-practice" gap that gives the opportunity to gain scientific knowledge that is based on the experience of practitioners and therefore is more useful to them.

According to these statements, the idea, research questions, and aim of this work are thought to be best explored and answered using the action research method. The phenomenological character of the study is supported mainly because a mixed group such as this is novel in a music therapy setting. The idea behind this approach had so many possible implications, challenges, chances, and possibilities that it could not really be estimated by any means what the outcome would be. Therefore, such a practically-oriented approach like action research seemed to be the best fitting way of conducting this study.

4.2 Data collection

All sessions of the therapy process had been videotaped with one or two cameras. Consent for this for research and teaching purposes was given through the parents of the participants before the start of the process and the data collection. The video material was investigated during the process for evaluation, supervision, diary writing, and for the action research

process, which actually became a very natural part of the therapists' regular meetings when it came to making changes.

After the process, the material was watched in its entirety once more and three sessions were chosen for the analysis. Overall, the analysis follows a comparative approach with the aim of giving as general a picture of the entire process as possible. The three sessions that had been chosen were picked for the following reasons:

- All the sessions represent a session typical for the process in its entirety (all participants were present, the duration of the sessions was average, the number and character of the activities was executed as planned)

- Each session represents a certain point of the therapy process (beginning, middle and end)

- Many activities of these three sessions are either the same or similar (e.g. same activity, same type or character of activity, or same activity purpose)

These three sessions had been transcribed into a detailed description of the video material, which served as the starting point for the actual data analysis.

One and a half months after the end of the therapy process, a follow-up meeting with the clients' mothers was conducted, during which they answered questions in a short, semi-structured interview. The questions addressed their opinion about possible changes they may have observed in their children during and after the therapy process, if they got feedback from playschools or preschools, if they changed something concerning music in their everyday life, and what might have been surprising to them concerning the music therapy process. The interviews were audiotaped and transcribed, which served as a data source for the later analysis.

The interviews served as a secondary data set for this study, as they were intended to rather shed light on the clients' behavior outside the therapy room and give a different angle towards the behavioral changes they might show in their everyday life but might be a result of the music therapy. This was especially important for Aaron, the boy with ASD, as his goals were

of a therapeutic nature, which is why it is highly interesting to hear about possible changes in his daily behavior.

The interviews, as well as the different analysis methods described later in more detail, allow for triangulation, which is a rather popular practice in qualitative research. According to Rothbauer (2008): “The basic idea underpinning the concept of triangulation is that the phenomena under study can be understood best when approached with a variety or a combination of research methods” (p. 893). Even though it may be mostly applied with different methods of data collection and analyses, according to Rothbauer (2008), it can be also applied to data sources. Triangulation has been used for this study in both the source of the data (video data and interview data) and in the analysis of the video data, which will be described in the next section. Further, she states that triangulation is used to, for example, reduce biases in qualitative research and increase the measure of validity, which is an important point for this study, because the researcher was simultaneously in the role of a co-therapist with the group.

4.3 Analysis

Action Research as such does not provide a certain analysis method. Depending on the phenomenon to be explored, it is in the researcher’s responsibility to choose an appropriate way to analyze the data (Waterman et al., 2001). The data set for this study is on the one hand transcribed observational data from the video recordings, and on the other hand transcribed communication data from the follow-up interviews. For the main data, the video transcriptions were analyzed in two ways for the sake of triangulation: Firstly, quantitative content analysis was conducted and after that a qualitative content analysis.

Quantitative content analysis in general is a tool for the researcher to answer certain questions from differing data sets, such as communications/conversations, interviews, pictures, video/audio recordings and so forth (Thomas, 2003). Even though this study is qualitative in nature, quantitative data and information can be extracted from the raw data. This gives a more objective insight into the therapy process as well as into the analysis. On the other hand, the observation serves as a frame for the qualitative analysis and implications.

The questions that should be answered through both the quantitative and qualitative content analyses are informed by the literature and driven by the experience of the therapy process. For the literature informed part served the “Music Therapy Social Skills Assessment and Documentation Manual (MTSSA)” by Dennis and colleagues (2014). With their MTSSA they created an invaluable tool for effectively assessing and observing the social behavior of children with special needs within educational contexts, which inspired and informed the research questions for this study’s quantitative and qualitative analyses.

The quantitative content analysis was conducted on the raw video material and included counting Aaron’s **eye contact/onlooker behavior** and **physical contact**, as well as his **general participation in activities** and **musical interplay** in the sessions, with and without physical aid. Physical aid has been defined by the therapist as follows: “Physical Aid: One of the therapists physically assists the client to execute or continue with a certain task. This does not include for example handing over an instrument, gestures (inviting him to an activities), verbal or musical cues”. Thus, the recordings of each session were watched at least four times to count the above-mentioned events, each time concentrating on another aspect. The counting also included writing down, for example, the duration of each time Aaron made eye contact.

The typically developing girls were excluded from the quantitative analysis. The reasons for that are quite simple: on the one hand, the typically developing girls were following instructions and activity-requirements much easier and more consistently than Aaron. Therefore, asking, for example, how often they were interacting with each other was irrelevant, as it is inherent in the structure of therapy. In that account, it was found to be more important to see, for example, *how* they are interacting with each other, rather than how *often*. Therefore, these issues were addressed more thoroughly in the qualitative analysis. However, the therapeutic goals of the therapy sessions have been found to be better supported through these kinds of quantitative observational data than for the educational goals.

The qualitative analysis followed a content analysis approach as well. Qualitative content analysis follows different schools of thought and approaches, depending on the kind of data that is available, may it be a classical communication, a narrative interview or, as in this case, an observation. As the video data was realized as transcriptions and thus in text form, a

content analysis seemed to be the most appropriate through looking for themes or categories that are reoccurring, or repetitions in new situations, as well as the sameness in the difference (Franzosi, 2004). The repetition that is sought after furthermore implies some kind of quantitative character of this content analysis, which will help in explaining the results of this study later on, as they complimented each other and provided richer results. Whatever approach is taken for the content analysis, in most cases it comes down to finding main themes or categories that emerge from the data and link them to the surrounding context.

At the beginning of the analysis process, the video recordings of all sessions were re-watched and some general notes were made concerning different aspects of the sessions (participants' moods and activities, general observations, notes in the context of the state of the process, etc.). After choosing the three sessions from this, these were thoroughly transcribed into text form and the timetable of each session served as a frame, so that it was already sorted by activities.

Afterwards, the data were read through completely without marking anything. In the second round of reading, striking passages were highlighted concerning musical interaction, social interaction, following or not following instructions, interpersonal behavior etc. Together with side notes and more in a process of creative writing, reflections on the first notes were gathered. After this, key words were written down, which actually became the categories and sub-categories that are presented in the results section (See table 1). With these categories at hand, the material was worked through once more and the appropriate parts were marked accordingly.

This contextualization of the data, making meaning, and eventually reconnecting the emerging categories, sub-categories, and themes with the data, shapes one of the main characteristics of content analysis in general (Julien, 2008). The categories that actually emerged represented behavioral patterns, which were again counted after the operationalization process was completed. The quantitative observations are described further for each behavioral sub-category in the results section.

Overall this process followed an inductive paradigm, meaning that no pre-set theories or categories were applied to analyze the data in the first place, but that these categories and

theories emerged from analyzing the data itself (Fox, 2003). According to inductive reasoning, Fox (ibid.) states that the aim is to gain a certain level of generalization from the qualitative data at hand.

The analysis of the interviews was very brief, because the interviews as such were rather short (5 minutes, 10 minutes, and 20 minutes) and semi-structured. With the interviews, the analysis followed a deductive approach, looking mainly for patterns that were already seen in the content analysis of the video material and concentrating mostly on behavioral issues and comments. However, the interviews were partly so short that basically all statements were taken into account in the results section.

4.4 The group

The group at the beginning consisted of four children: two boys diagnosed with autism spectrum disorder (ASD), four and five years old, and two typically developing girls, four and six (turned seven during the process) years old. The boys with autism received one individual assessment session each before the group process began. Overall 18 music therapy sessions were conducted, lasting approximately 25-30 minutes on average. The sessions took place two times a week in the music department of the University of Jyväskylä and were lead by two students of the music therapy international master's degree program.

The recruitment of the children for this project was quite challenging, mainly because of the language barrier and the target group. After a small odyssey to many schools in Jyväskylä, an English play school was found with a headmaster, who was very excited about the idea of this group and advertised it to the children's parents. Through this, a great contact evolved that brought one of the typical girls to the group. The other group members were gathered through personal networking, talking to people, visiting self-help groups for parents of children with special needs, and a center for international communities in Jyväskylä.

The group members shall be introduced briefly at this point, in order to make it later easier to follow the results and discussion. For masking purposes, the names were changed.

Andrea (4):

Andrea first seemed to be a bit shy and also not that fluent in English, as her first language was Finnish. However, after the first two sessions, it was not a problem anymore and she became lively and less shy in the sessions. Despite some language difficulties, Andrea showed a great interest in and understanding of music quite quickly. She had a good sense of rhythm and could engage with a one instrument (mainly metallophone or triangle) easily and for a considerable period of time. Throughout the process, she developed an obvious attachment towards the other group members, which she showed through physical contact, laughter, positive social interaction, and engagement. She showed great imagination in the musical, as well as movement, tasks and always participated in very creative ways. Early in the first half of the therapy process, she developed a special attachment towards the older girl in the group, whom she would often follow, mimic, and address. Andrea was not attending a daycare or kindergarten at that time, but was staying at home with her father and her younger brother. The main goal for Andrea was more concentration on activity transitions and reaction to changes, mainly on a communication level.

Laura (7):

From the first session on, Laura was very willing to do things and to follow the orders of the therapists. However, she also started to test boundaries and borders at around the same time, would roam around parts of the room she was actually not allowed to be in, or play instruments in a different way than instructed (e.g. playing the hand drum with the feet was a favorite). Nevertheless, Laura appeared to the therapists to be a smart child with many abilities and skills. Musically, she was experimental and creative towards many instruments (mainly the metallophone), but at first had not shown as much rhythmical understanding as, for example, Andrea. Yet, she learned very quickly and made progress on that matter very fast. Overall she was a very creative child within all kinds of tasks, musically, with movements, or with her voice, and almost always found creative solutions for problems or tasks. She - especially at the beginning - enjoyed “follow the leader” activities and would rather play on an instrument on her own. Sharing and multi-directional interaction (rather than uni- directional) towards her group mates was the main goal for her, in addition to the general music educational goals.

Aaron (4):

Aaron was diagnosed with autism spectrum disorder and was already receiving occupational therapy. He was mainly non-verbal, but showed different kinds of vocal reactions, depending on his mood, such as high pitched sounds, humming, babbling or other sounds of excitement, but especially teeth grinding. From time to time he would say an actual word – either Finnish or English – but these were very rare. In the first four sessions, his mother or grandmother would be with the group in the room during the sessions for support, but their role became more and more inactive so that eventually they could leave the room during the sessions. This was not a problem in the end, as he was very adaptive. At first he was more isolated but, already in the first sessions, he could be lead towards group activities, which he would discontinue again quite fast. During the first six sessions, he developed typical on-looker behavior and would stay or sit apart from the group, watching what was happening. It was quite easy to get his attention with new or interesting instruments and, from the first session on, he showed a great interest in the ukulele, which was played by one of the therapists. He would come of his own accord to touch it, take the strumming hand of the therapist, and then even play together for a short time.

After first signs of distress at the beginning of the first therapy sessions, he grew accustomed to the therapy structure and started to move more freely through the room and within the group. At the end of the first half of the process, he showed a great attachment to the female therapist, who at that time functioned as his key-person. He showed affection through touching or kissing her nose (which, according to his mother, was typical for him if he likes someone a lot), but also started to briefly pinch and touch the co-therapist and, eventually, his fellow group mates. He showed enjoyment in moving, jumping, and running around the room and it became easier to make him participate in musical activities. Despite his pathology, he showed more and more interest in the social dynamics and participants of the group, which was shown especially through his on-looker behavior, eye contact, physical contact, and musical action/interaction within the group.

Victor (5):

Victor was diagnosed with autism spectrum disorder, he was completely non-verbal and it was apparent from the first assessment session on that he had a more severe form of ASD than Aaron. Eye contact with Victor happened very seldom; he almost always reacted with distressed sounds and noises at the beginning and throughout the group therapy sessions, such as whining or even screaming. His mother was in the room as well with him during the group sessions and it was hard to make him participate in any of the activities without receiving a negative or distressed reaction. When the mother's role became more inactive during these sessions, it was possible to engage him in musical activities, like drumming or strumming the ukulele with the therapist. Again however, he got distressed very easily and would whine or scream. Also he showed high sensitivity towards loud sounds, especially during activities with drums or metallophones, and would put his hands on his ears and make distressed noises. After the fourth session, the therapists decided with his mother to take him out of the group and work individually with him, with the prospect of re-including him in the group after a maximum of five sessions. During these five individual sessions, where the mother was no longer in the room, it was possible to calm him down more easily and make him comfortable with very structured musical activities. Nevertheless, it was decided, that it is no good to re-integrate him into the group, as the group setting seemed to be too unpredictable for him and the setting might be not have been the right one for him. He continued with individual therapy with one therapist for the previously agreed upon number of sessions, which turned out to be much more beneficial for him. Because of his dropout early in the process, he did not factor as highly in the analysis.

4.5 The therapy process

4.5.1 Session structure

Before the group process started, the therapists worked out a session template. As the therapy sessions were to address music therapeutic and educational issues, but because of the pathology of the boys with autism, this template aimed to structure each session in the same way and provide space for both educational and therapeutic activities. The activities were literature-informed and were categorized in three parts: music therapeutic, music educational,

and neutral/group-cohesion activities. The categorization turned out to be quite complex in such a way that some activities were utilized in both therapeutic and educational contexts. Even though it seemingly makes the actual classification tricky, it brings two positive implications:

1) Even if an activity is used in both therapeutic and educational contexts, the mix of the group and thus the social inclusion gives a shared context of these two fields. Through the special, social inclusive setting, the activity can have a music educational impact on the typical children, as well as a therapeutic effect on the non-typical children.

2) The pathology of the boys with autism and the connected goals, which are implemented in the social inclusive approach, makes even a "purely" educational activity therapeutic for the boys with ASD, as enhanced social skills are part of their set goals. At the same time, a "purely" therapeutic activity gains an educational factor for the typically developing girls – maybe not a *musically*, but a *socially* educational factor. Therefore, the activities were symbiotically effective for both the typically and non-typically developing children.

It must be stated that the selection and categorization of the activities was informed by the pathology of the boys with ASD, as well as by the individual goals of the typically developing children. If children with other and/or different special needs than ASD were to have been in the group, other activities would have likely been selected.

Additional to the formal structure of the sessions, a thematic structure was given for each meeting. Mostly a certain "instrument of the day" was at the center of the activities and/or the session had a certain theme (mostly connected to animals, landscapes, daily situations, stories etc.). According to the topic and/or instrument of the day, the activities were selected or adjusted, in order to have transitions that were easier for the children to follow.

Each session consisted of nine activities, which were categorized as described earlier. The session always started with the same "**hello song**" (category: neutral/group-cohesion) and a combination of singing and movement that was done with the children. For the hello song, the co-therapist would always take Aaron into her lap and do the movement with him, to mark the starting point of the session for him more concretely.

The hello song was followed by the "**post-hello song with movement**" (Category: neutral/group-cohesion), which often were known children's songs that included movement and/or body percussion.

After that, the "**Introduction of the Instrument(s) of the Day**" (Category: educational) was done through a game or a song with that instrument. Different educational parts were added, depending on the chosen instrument, such as: rhythm exercises, dynamic tasks, creative tasks, questions and so on.

This was followed by an "**Improvisation activity with the instrument(s) of the day**" (Category: therapeutic) and mainly consisted of free or structured improvisations, that aimed to include the boys with autism without the pressure to complete a certain task. One of the challenges of the entire process was, that in very structured activities with many rules, the children with autism were likely to break - or just disobey - the rules. This sometimes was hard to communicate towards the typically developing children, but also gave opportunities for creative solutions for both target groups. Improvisational activities provided more freedom and flexibility within the structure.

After these more focused tasks, an "**In between song with movement**" (Category: Neutral/Group-Cohesion) followed. It was intended to be some kind of reward for their concentration and, at the same time, help to release some energy so to be able to concentrate a bit more on the next task. Again, mostly known children songs or group songs the therapists made up were sang and done with movement and/or body-percussion.

The "**Game with movement and/or singing**" (category: educational) already briefly marked the termination of the session. At that point mostly the instrument of the day was implemented in a new way, but very often this "spot" was used for songs and other creative activities.

"**Therapy activity with instrument and/or voice**" (category: therapeutic) was often used for vocal improvisations or other therapeutic activities. The focus again was on the boys with autism and activities were used, that should wake the awareness of the girls toward the boys, meaning that mimicking or copying was included in particular.

The “**Pre- Good bye song**” (category: neutral/group-cohesion) was often the same song (“The more we are together, the happier we’ll be”), but over the sessions this was also changed. However, the children started to request this better-known song, and they all developed different movements to that by themselves.

The “**Good-Bye song**” (category: neutral/group-cohesion) was again always the same one, sung by everyone, and it addressed each child individually. The co-therapist again took Aaron into her lap for that song to more clearly mark the ending of the session for him.

This order emerged as one outcome of the action research approach, so it was slightly changed during the process. In between, the therapists tried to implement a schedule with removable pictures of the activities, in order to make the structure clearer for all children. However, it was found to interrupt the flow and the transitions within the session and therefore was abandoned.

4.5.2 Stances of the therapists

At the very beginning of the therapy process, both therapists took strict roles within the group. The author would lead the entire session and stay in the center of the group, giving structure and initiating the transitions. In addition to that, the task was to leave the group and each activity “open” in such a way that it was easier to include the children who might have been temporarily outside the realm of the group. That meant the attention was not only on the children within the group activity, but also on those outside of it, in order to include them if needed. However, this role required to mainly tend to the typical girls and meant the author took more the role of an educator rather than a therapist.

Maartje, the second music therapist, was responsible for the children outside the realm of the group or activity, which made her mainly responsible for the boys with autism. Her task was to bring the children from the outside into the group and the center of activity. In that sense, she had to also always be aware of what is happening in the group, in order to react appropriately to bring children strolling around back to the activity.

This strict division of roles was loosened after session four, as the group temporarily took place with only two children (Victor had his individual sessions and Laura was traveling with

her mother and missed four sessions during that time). Due to the reduced number of children, there was on the one hand no longer a need for a strict division of the therapists as it was easier to control and lead the group's activity, and on the other hand the therapists feared that a strict division between the two of them (one tending more to the typical children, the other more to the boys with autism) may enhance a division between the pathological and non-pathological group and might even have increased a feeling of difference – which was by all means the opposite of the desired effect.

So, by then the therapists started to take turns in leading the activities, based on the premise that one may lead the activity, but both therapists may be flexible in dealing with the children; the therapist closest to the child not participating for example, will take care of it. At that stage, the therapists also developed a more open communication with each other during the sessions, which supported the order - as well as the flow - of the sessions.

After this practice had settled, at around the middle of the process, it was normal practice to assign the role of "leader" to one of the therapists for each activity, which was mostly applied in such a way, that the assigned therapists started or initiated the activity and gave the instructions, but there was no strict distinction in the execution of the activity.

4.5.3 The sessions

As it would exhaust the scope of this work to give an overview of each session, there shall be a brief insight into the process through the three sessions that were also chosen for the analysis. Session number 2, 11, and 17 represent the assessment-, working- and termination phases of the process respectively. They will be described within the context of the session and in the overall context of the process, but also with a few details concerning the concrete session, to give a stronger foundation for the results section.

The assessment period – Session 2

The second session represents the starting and assessment period of the therapy process. In this session and until the fourth session, the group still consisted of four children – the original number of the group – with the two boys with autism and the two typically developing girls. As was the custom in the first four sessions, the autistic boys' mothers were

in the room for support. They were mainly assisting their children with the different activities, taking care that the boys are not going into the area of the room they were not allowed in and giving physical aid. Overall, the mothers were active throughout the entire session. This had been drastically changed during the two following sessions, in which the mothers sat on one end of the room and asked to observe and only intervene when requested. After session number 4, the mothers were not in the room anymore. The decision to have the mothers in the room was made to have the boys begin at a familiar point when starting the therapy process and possibly reduce the level of stress and irritation from the new and unknown environment and situation.

The therapists had strict roles, as already mentioned above in the "Stances of the Therapists" section. Overall, the first sessions were very structured concerning roles of the therapists, had fast and concrete transitions between the different activities (lead by the main therapist), and were neither very flexible nor free in the therapists' strict roles. However, at that point of the therapy process, the clear structure was meant to maintain the group dynamics and the flow of the session (meaning it would not get boring because as a result of transitions that were too slow). Due to these fast transitions, there was not much space for interaction outside of the activities, as there was a constant demand for action and reaction for all group members and therapists. It was, however, visible that, as soon as the mothers of the autistic clients were less active throughout the sessions, the two boys would move more freely in the room and started to participate more. That applied especially to Aaron, who only went to his mother on occasions to kiss her nose or give a hug during this last session with her. Other than that, he would roam around, exploring the room and participating more frequently, also due to Maartje's guidance. Victor, however, always stayed close to his mother, trying to engage her in a kind of game or poking her, but not getting an elaborate reaction as agreed with the therapists beforehand. At these points, he did make steps towards the group and could be approached by the therapist with an instrument but did not partake in group activities.

The working period – Session 11

Session number 11 represents the working phase of the entire process. The group consisted of Aaron and the two typically developing girls. Victor left the group after session number 4 and

continued the process in an individual setting; the mothers were also no longer in the room after that.

The therapist's diary shows that certain attunements to the mindset of the therapists have been made:

> Before the session we decided to be more relaxed and positive, should the kids do not do as we ask them to. So we would rather play with them when they started right away on a new instrument, and then give a musical cue to stop. At all, we wanted to give more positive signals of leading, have faster and easier transitions and don't explain too much. Over all, it worked out pretty well, the session had a very good atmosphere, the kids were following mostly the tasks and were easier to bring back with a musical intervention rather than with a verbal.

Also the structure had been adjusted in such a way that the roles of the two therapists were not as strict as in the first part of the therapy. That meant that neither one of the therapists was leading the entire session and all activities, but the responsibility for the activities had been split between the two. This was alternating during the session, as was the responsibility within the group, i.e. leading the group on the one hand, and caring for Aaron and the other kids, when they left the center of activity on the other hand). The goal was a higher flexibility and a more natural flow for the session. This had been implemented in session 5 and the therapists had grown accustomed to this more free-flowing division of responsibility.

Overall, the structure template of the sessions had been adjusted so that the "in between song" and the second educational activity switched places. The "in between song" now marked the middle of the sessions. The goal behind that was to give a break after the first therapeutic and educational activity and the second block of these activities. It was to give a clearer structure overall and should make it easier to concentrate on the second educational and therapeutic activities of the sessions. At that point, the therapists were also using a schedule with pictures, which the group looked at after every activity and from which the children could remove the picture of the activity that has just been finished. The schedule was introduced during session number 6, to give a visual dimension to the overall structure, and to make the sessions more predictable and safer for all the children.

Aaron had developed a closer relationship to Maartje, whose nose he kissed in session 9, which according to his mother implies appreciation. Also, as can be later seen in the quantitative data from this session, she is the one he makes most eye contact with.

The termination period – Session 17

Session number 17 represents the termination phase of the entire process. The structure of the agenda had not been changed since the template change in session 11, as it proved to be more practical and natural within the sessions.

In terms of strictness with the children, the therapists agreed on a positivistic approach, where they wished to give musical cues to control "undesired" behavior and lead it towards "desired" behavior, meaning to make the children do what was requested through a musical cue. If this would not work, the therapists agreed to continue with the activity, not paying attention to the undesired behavior. Through this, the children's attention should be drawn towards the activity and the group again, which in the long run, worked out better than giving verbal cues or paying more attention to the "undesired" behavior, as it can be found in the therapist's diary from session 14:

> When Laura would climb on the window bench, I tried to make downward glissandi with the violin, accompanying the "up" and "down" movement of her. She followed this [these] cues, apparently liking the musical accompaniment of her action. When she then did not stop with the music, I turned back to the center and started the activity with Maartje. After a brief observation of what we were doing, Laura climbed down and joined us in the center on the mats.

This practice continued through the rest of the sessions, even though it had to be adjusted from time to time according to the situation. However, it also maintained a more positive atmosphere in the session, rather than former verbal interventions did.

The schedule with the pictures was not used anymore during this time, as it normally made the girls play with the tape and distracted them, which ended with an interruption of the flow of the entire session. Instead, the transitions made by the therapists were more fluent and fast, which was to support them in keeping the children's and keeping the sessions interesting.

Also, beginning from the 15th session (from a total of 19), the children were told after each session how many meetings remained, in order to make the termination of the process clearer and easier.

During the termination phase, beginning however already in session 14, the girls showed wilder behavior and would roam and climb around a lot in between and also during activities,

especially before or during the actual start of the session, i.e. before the hello-song. Aaron was at that time in the mood for being chased and would pick the smallest sign of somebody approaching him as a cue to start running away and looking behind himself towards that person.

These and other observations in the light of the actual analysis, will be presented in the upcoming results section.

5 RESULTS

At the beginning, the quantitatively analyzed data will be presented and briefly described, although further comments will be made in the discussion section. Afterwards, the findings of the qualitative analysis of the observation will be presented, namely the three main categories with the sub-categories that emerged from the content analysis, followed by the results of the follow-up interviews conducted with the mothers of the clients.

Aaron's eye contact and onlooker behavior had been observed, counted, and measured. Minimal eye contact is a distinctive characteristic of individuals with autism spectrum disorder, although eye contact is an important feature in terms of non-verbal communication, which people with ASD often lack (Bogdashina, 2005). Even though eye contact may not necessarily communicate explicit information, it may be seen as an indicator of regard, awareness, and attention. With the term onlooker behavior, e.g. educators mean a child watching other children play without partaking or engaging in it (Santrock, 2007). Direct eye contact and general onlooker behavior is seen in this study as a sign for attentiveness, awareness, and regard towards the group members, which meant it was crucial to record. Therefore, Aaron's eye contact and onlooker behavior was observed and counted from the video recordings, and the duration was measured. It must be said that the camera did not record every corner of the room and therefore there is a data-gap of approximately 3 minutes per session, where Aaron was not in the picture and therefore these factors could not be observed.

The physical contact was also recorded, for it was stated by Aaron's mother that he would for example grab/kiss the nose, pinch the shoulder or neck, or stroke the head of a person he likes. Therefore, physical contact was counted. In the analysis, this contact was linked to people (towards whom he is looking/whom he is touching), and the eye contact and onlooker behavior was additionally sorted by activity. That also means that the overall number of eye contact and onlooker behavior in the graph with the activities is lower, because it does not take the transitions and breaks into account, which are documented in the graphs depicting the situation as a whole.

5.1 Results of the quantitative inquiry

The quantitative findings are illustrated with graphs, which on the one hand show the eye contact and physical contact and on the other hand the participation of Aaron. All graphs are divided by session number.

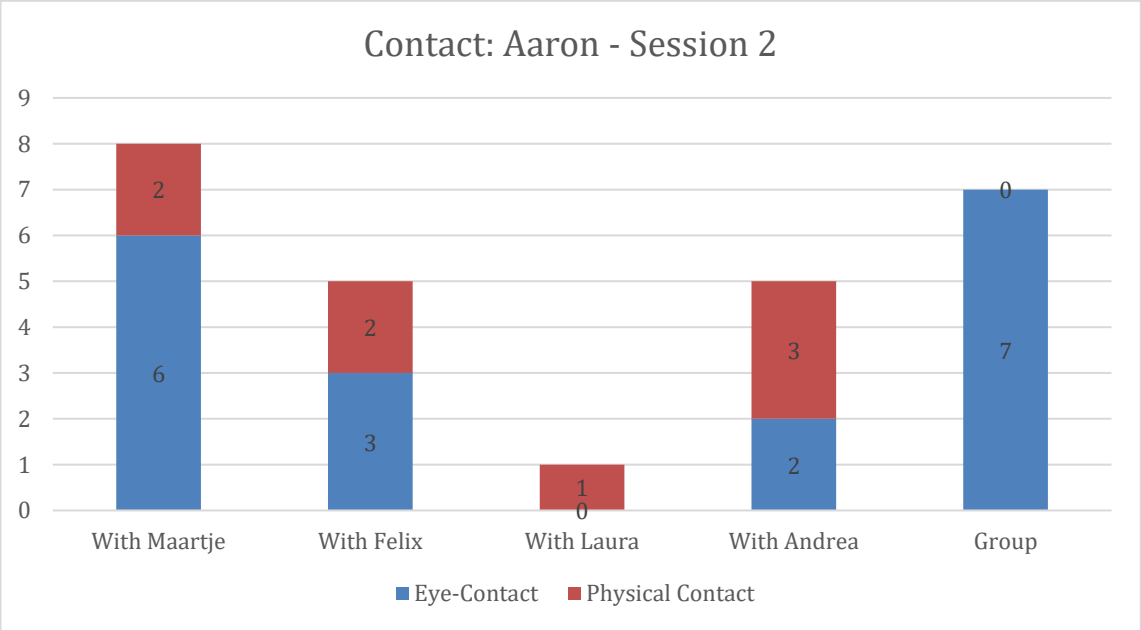


FIGURE 1. Aaron's Eye- and Physical Contact, Session 2

Aaron made eye contact and displayed onlooker behavior 18 times in the second session (see Figure 1) and for a duration of 78 seconds (1'18'' minutes) He mainly showed this behavior towards Maartje and the group as such, but not at all towards Laura. He made physical contact eight times, which lasted about 8.5 seconds. He made physical contact with all group members, though the most with Andrea (three times) and the least with Laura (once).

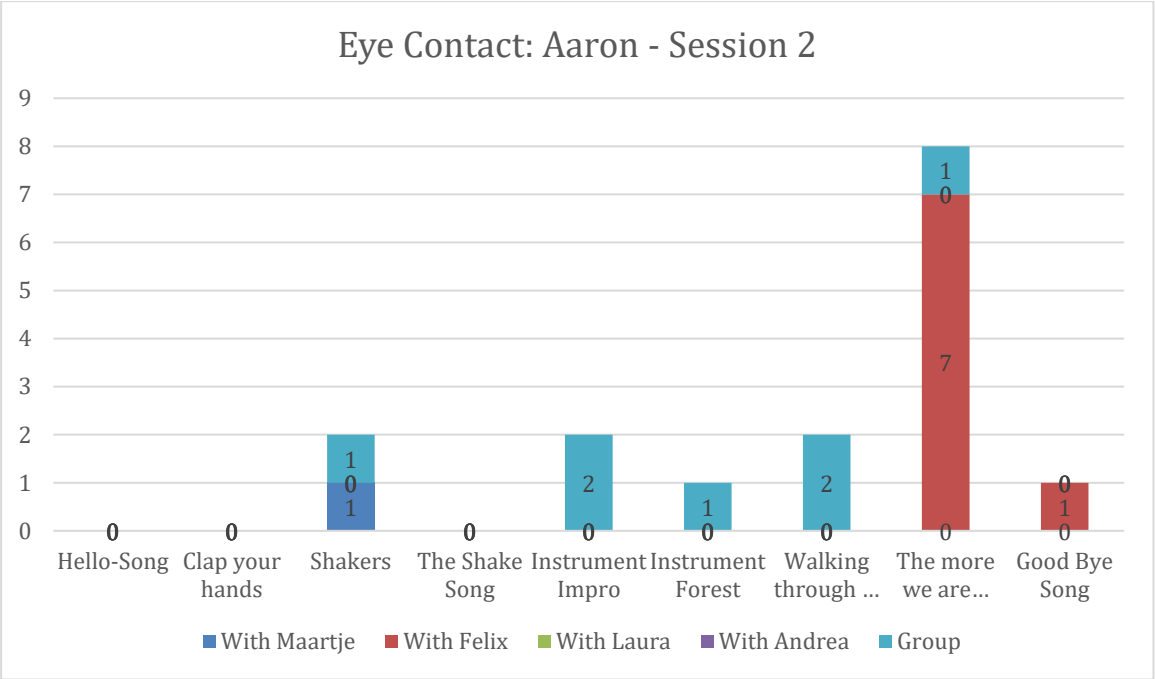
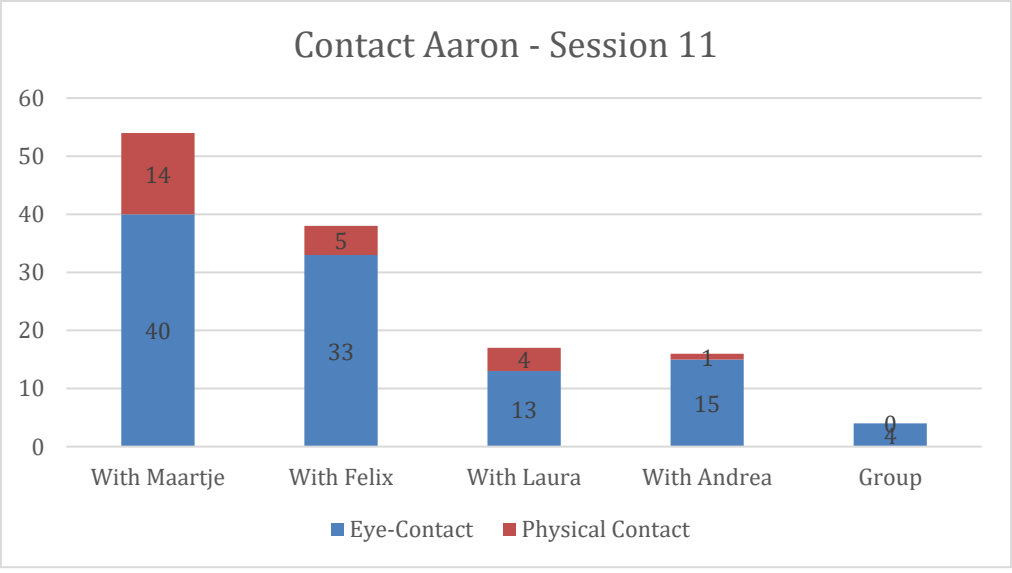


FIGURE 2. Aaron's Eye Contact and Onlooker Behavior categorized by Activities, Session 2

Aaron's eye contact and onlooker behavior seemingly peaked in the "The more we are together"-song, where he showed it seven times towards Felix (see Figure 2). During the other activities, he showed either non eye contact or onlooker behavior, or only once or twice. In the first two activities and during the "Shake-Song", he did not show any eye contact.



FIGUTE 3. Aaron's Eye and Physical Contact, Session 11

The overall amount of Aaron's eye contact and onlooker behavior is 105 in session 11, and lasted 216,5 seconds (around 3'36'' minutes). He mainly made eye contact with Maartje (40 times) and 33 times with the author, and favored both girls approximately with the same number of eye contact moments (Laura 13 and Andrea 15) (See Figure 3). He looked at the group overall 4 times. Overall he made physical contact 24 times (for around 50,5 seconds), most of these with Maartje (14), whereas only once with Andrea.

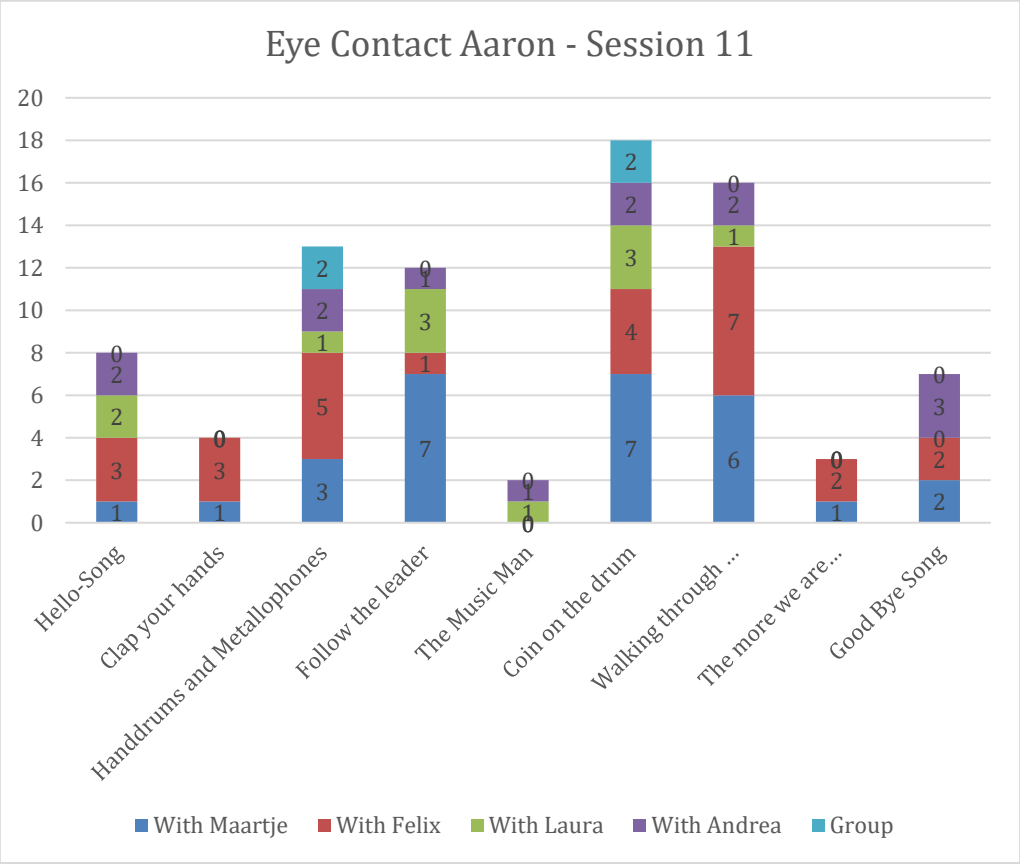


FIGURE 4.: Aaron's Eye Contact and Onlooker Behavior categorized by Activities, Session 11

During all activities, he made eye contact at least twice, or showed onlooker behavior (see Figure 4). The highest amount of eye contact was during the "Coin on the drum"-Activity, in which he looked at every group member and that the group as a whole, while "The music man" activity triggered eye contact once with Laura.

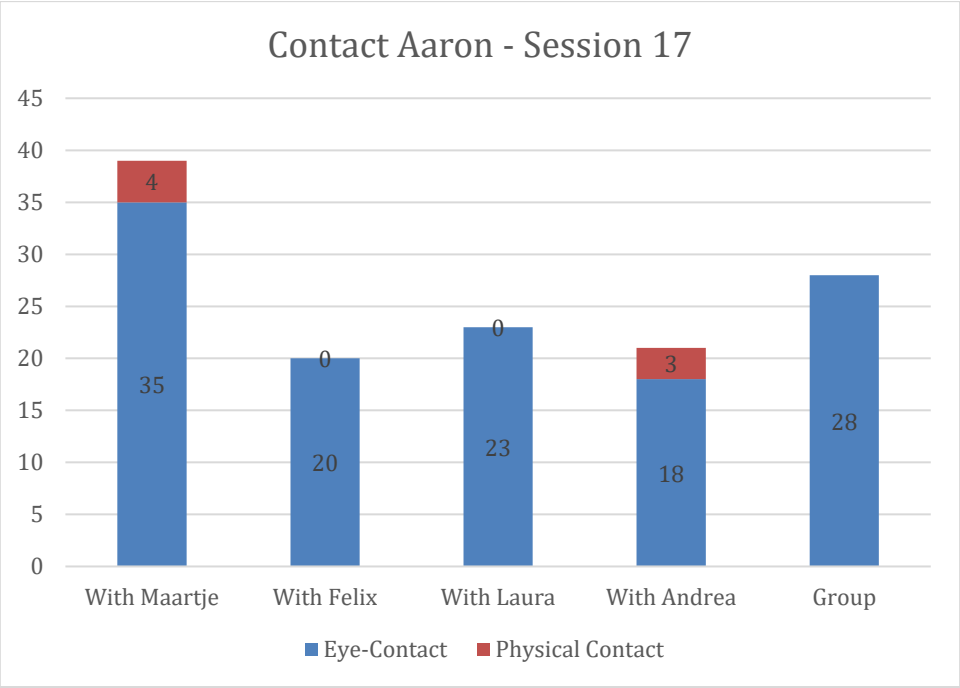


FIGURE 5. Aaron's Eye and Physical Contact, Session 17

The overall amount of eye contact and onlooker behavior in session 17 was 124, for a duration of 366.1 seconds (around 6'06'' minutes). Even though he mostly looked at Maartje, just as in the sessions before, the distribution of eye contact with the other group members seemed to be even more and he looked at the other group members 28 times (see Figure 5). He made physical contact seven times for an overall duration of 13'5'' seconds.

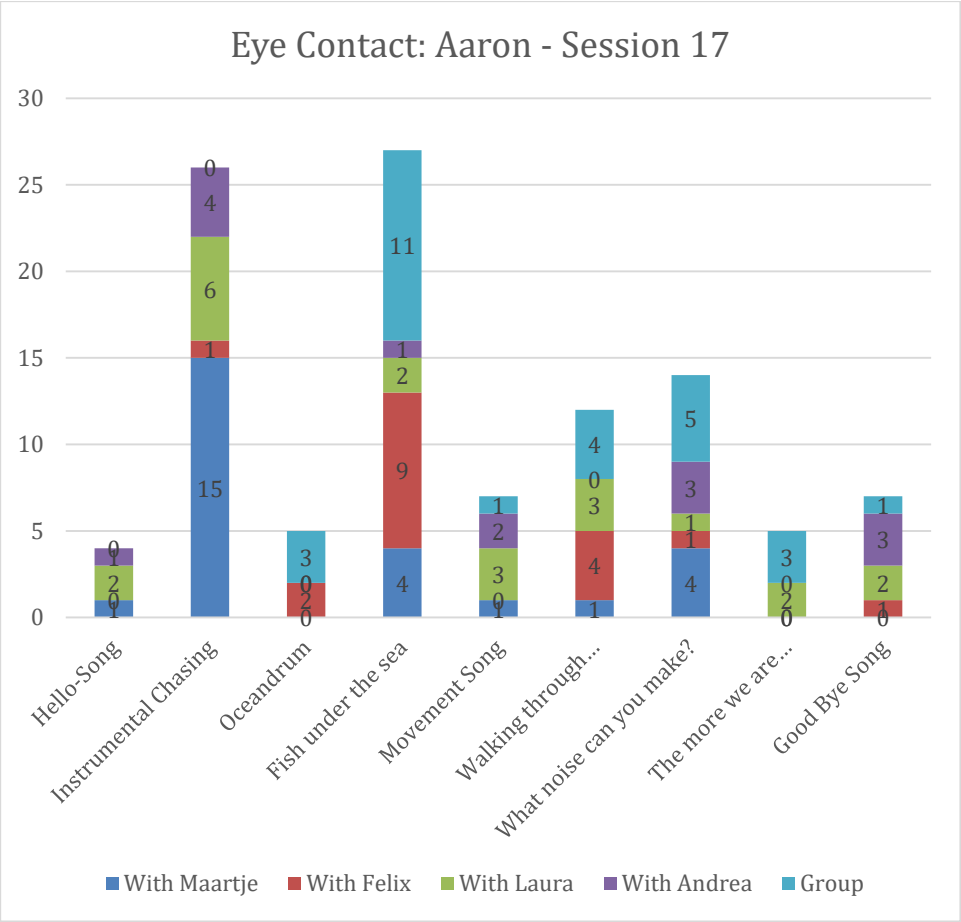


FIGURE 6. Aaron's Eye Contact and Onlooker Behavior categorized by Activities, Session 17

The "instrument chasing" as well as the "Fish under the sea" activity caught Aaron's eye contact the most during this session, whereas the other activities seemed to catch his eye in quite the same way - with exceptions of the "Walking through…" and "What noise can you make" activity (see Figure 6).

The other part of this quantitative inquiry of the subject is Aaron's participation in the sessions; this includes the participation within the activities as well as while playing instruments, both with and without physical aid.

This was entitled: "Musical Behavior and Participation", as is shown in graph 4.1.

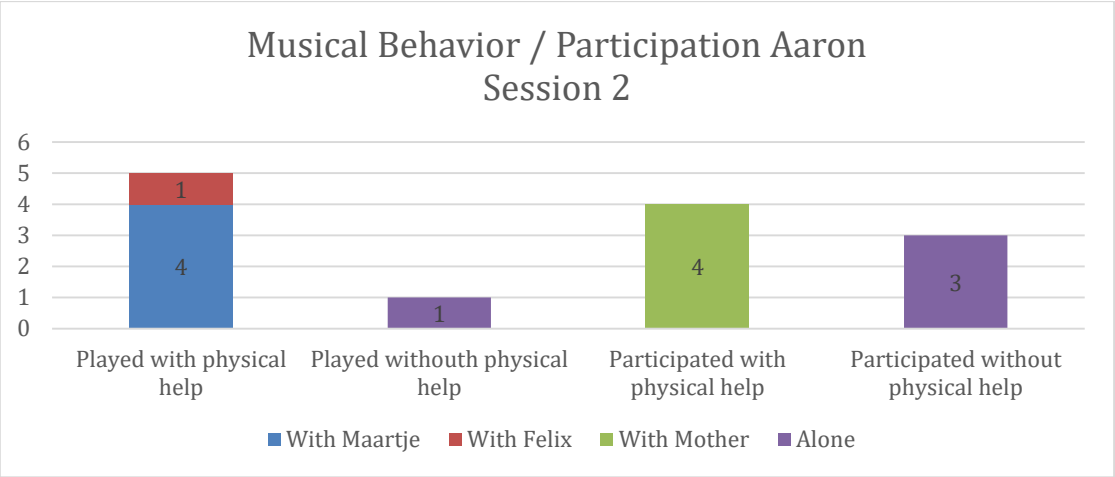


FIGURE 7. Aaron's Musical Behavior and Participation, Session 2

The overall count of his participation is 13 (See Figure 7). Physical help mostly came from Maartje or his mother during this session. However, his participation without physical help was also been observed. The durations of each part are listed below:

1) Duration of instrumental play with physical help: 20 seconds

2) Duration of instrumental play without physical help: 2 seconds

3) Duration of participation with physical help: 91 seconds (1'31'' minutes)

4) Duration of participation without physical help: 72 seconds (1'12'' minutes)

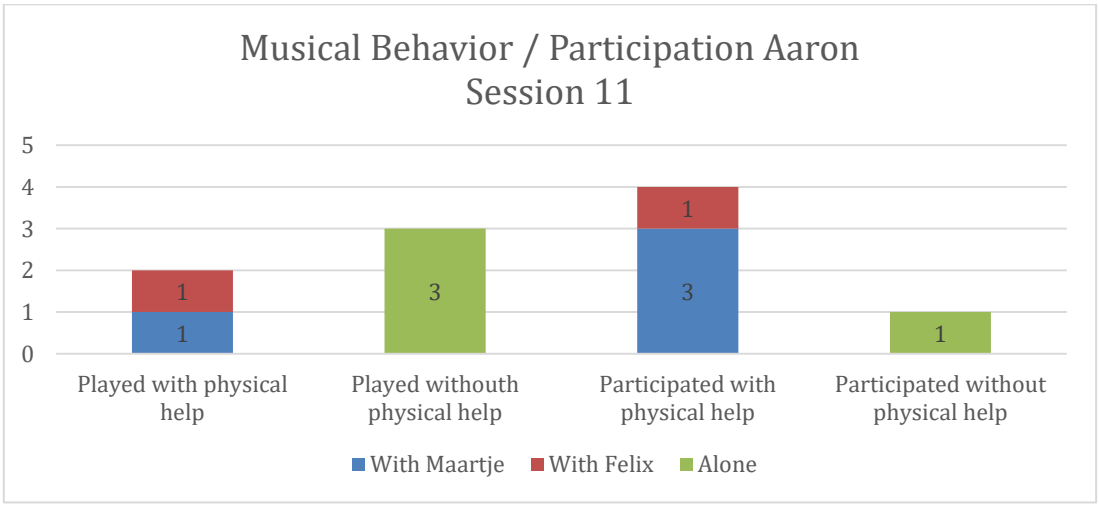


FIGURE 8. Aaron's Musical Behavior and Participation, Session 11

Overall, he participated 9 times in session 11 (see Figure 8). Again, it was mostly Maartje, who engaged him with physical aid in the session. Anyhow, the durations of each participatory category are listed below:

1) Duration of playing with physical help: 4 seconds
2) Duration of playing without physical help: 4 seconds
3) Duration of participation with physical help: 128 seconds
4) Duration of participation without physical help: 10 seconds

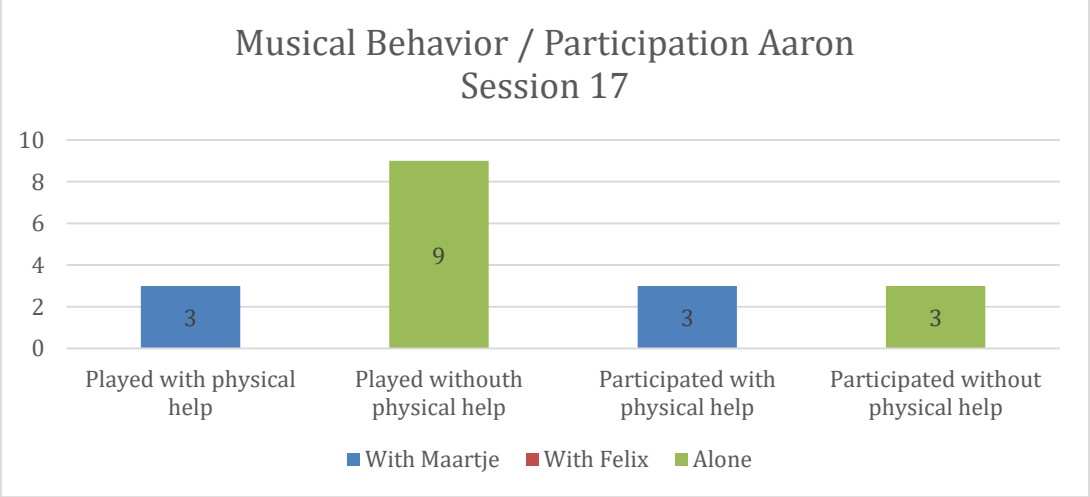


FIGURE 9. Aaron's Musical Behavior and Participation, Session 17

Overall he participated 18 times with and without physical aid, while Maartje gave the physical aid when needed (see Figure 9). The amount of participation, both musically and otherwise was 12. Also the duration of his participation increased compared to the other sessions. The durations are shown in the list below:

1) Duration of playing with physical help: 8 seconds
2) Duration of playing without physical help: 68.5 second
3) Duration of participation with physical help: 120 seconds
4) Duration of participation without physical help: 140 seconds

5.2 Qualitative content analysis results

Table 1 shows the results of the qualitative content analysis, presenting the most frequently extracted categories or themes from the observation. Three main categories emerged during the coding: 1) *Following Instructions*, 2) *Not Following Instructions*, and 3) *Social Behavior*. Each of these were divided into three or four sub-categories to further describe the character and value of each main category and are accompanied with a description and illustrative examples from the session transcriptions.

TABLE 1: Results of the Qualitative Content Analysis of the Session 2, 11 and 17.

Category	**Sub-Category**	**Definition**	**Examples**
Following Instructions	Exactly following Instructions	Activities are executed as requested Right movements, playing, changes and start/stop cues	"The typical girls make the movements accordingly and promptly" (S2A2)
	Partly following Instruction	Parts of the activities are executed as requested	"[Laura]…, trying to follow the movements accordingly but not singing along" (S2A1)
	Freely following instructions	Client may leave out movements, playing, singing to the requested activity Activities are executed only or additional with fitting individual variations Different, but suiting movements, sounds, playing Client takes part fully, but differently	"Laura makes her own movements to the song, different to the once that are usually done." (S11A1)
	Delayed following	Activities are started after a delay Client needs some time to realize, what he/she is requested to do Client needs extra instructions to follow	"She reacts to the cues in the song with a longer delay." (S2A3)
Not Following	Not at all	Activities are not executed and the client does not participate at all	"After this round, he stands at the window, observing the group but not coming into the

			center." (S17A4)
		The client may stay outside the group's realm	
	Freely not following	Activities are not executed as requested	"…, jumps and runs around the room, smiling, but does not do the movement." (S17A5)
		Client does not interact with other group members	
		Client may play, move or sing inside and outside the group's realm	
	Temporarily not following	Activities are not executed, but not throughout the entire duration of the activity	"After that, […] she does not look around or reacts to the "freeze"-cue anymore." (S11A4)
		A temporary "break" in following	
Social Behavior	Mimicking	The client mimics another group member	"Andrea is mainly following Laura through the room and in her movement." (S2A8)
		Client may copy movements, actions, or musical expressions	
	Sharing	The client shares an instrument, a toy, another object, or personal space with another group member	"When Laura changes the hand drum then, Andrea follows her to the same instrument." (S2A3)
		The client may give an instrument, toy or other object freely to another group member	
	Ignoring / Passing	Client ignores or skips over another group member	"[…] and did the same to Felix and Andrea, but did not go to Aaron." (S17A6)
		Client may not regard or look at another group member, though the situation/activity demands it	
	Withdrawing	The client withdraws from another group member, a shared instrument, or a shared space	"When Andrea starts playing on the same hand drum, Laura switches the instrument." (S11A3)

These categories emerged through the coding of the data as described in the analysis section (section 4.3) and were found to be most fitting in helping to answer the research questions, which focused on challenges of the mixed setting, the therapeutic and educational effectiveness of the activities, social behavioral, and learning behavior of the clients.

Categories 1 and 2 focus on how activities and tasks had been executed and look mainly at the individual level. Category 3 however looks into the social behavior within the activities and hence is on the interpersonal level. In the following section, each category, and its sub-categories, will be looked at in more detail, supported through short excerpts of the session transcriptions.

5.2.1 Category 1 – Following Instructions

The way a client follows the instructions of an activity can give insights about different features of the whole therapeutic and educational process (right target of the activity, suitability of the process, level of difficulty etc.) and the clients themselves (capability of learning, handling unknown tasks, creativity etc.). As the capabilities of the clients in this study were different due to age difference, language skills, and importantly special needs, observing and analyzing how the clients individually follow the instructions of an activity, offers a "scale" to evaluate the suitability of the activity itself. A brief example:

Each of the overall 18 sessions started with the same "Hello"-Song and ended with the same "Goodbye" Song. In the "Hello" Song of session 2, Laura followed the movements, but does not sing along (Sub-category: "Partly Following Instructions"). Andrea made the movements with a small delay, but sang along (Sub-category: "Delayed Following"). Aaron did not show any reaction whatsoever (Category: "Not Following", sub-category: "Not At All").

One of the most important characteristics of the activities assessed is suitability. Firstly, because of the diverse client group that was brought together in this study (meaning typical developing children and a boy with autism) and secondly, due to different developmental stages of the two typical girls, as well as naturally differing skills, capabilities, and coping strategies. To see how the children followed the activities and instructions throughout the entire process was a valuable indicator of the effectiveness and impact of each activity and the overall process.

Sub-Category 1.1. – Exactly Following Instructions

Exactly following instructions, meaning that the activities were completed as requested with the right movements, singing, and listening to start- and stop cues etcetera, was shown for example on occasions as is describe below from “The Shake Song” from session two:

> She [Laura] looks often around to the adults and mimics their movements, as well as shakes according to the song (high, low, turn around).”

Following the instructions exactly highlighted two additional features within this observation; it was either followed exactly while or after mimicking or observing the therapists, as in the example above, or in an already familiar activity. The “hello song” is an example illustrating the latter mentioned: In session 2, no client was doing the “hello song” exactly as instructed; it was either delayed or partly done. In session 11 both the typical girls follow exactly, and Aaron partly (which is, because he is mainly non-verbal and does not sing along).

However, this sub-category does not imply that the activity had been executed exactly as requested from beginning to end. Also, following the instructions exactly for a shorter episode of the activity did count, because a learning process and familiarization may have happened also during the activity (getting used to the principles of the song), and because the capability of the children had to be taken into account. An activity can also get boring, which may make the child stop doing it, or the activity is so demanding, that it takes longer to grasp the idea and to execute it correctly eventually.

In the “Time to cap your hands” song of session2, Laura gave a great example of such a precise following, after she had gotten used to the activity:

> Laura observes both therapists almost without pausing, smiling and doing the movements that are in the song. First she mixes them up (keeps clapping while stamping is required) but seizes it after half of the “stamping”-round.

After the transition of the movements, Laura at first mixed up the movements. The song had been done for the first time in that session and Laura adjusted her movements after half of the song, during which she was almost constantly observing the therapists.

Andrea gave an example of stopping to exactly follow the “goodbye” song in the second session:

> Andrea observes Maartje from the beginning of the song and starts waving her hand, as soon as Maartje does it and sings “It’s time to say good bye”. When her name is sang [sung] in the song, she looks briefly at Felix and then walks into one corner of the room and stays there until the end of the song.

After observation and through mimicking, Andrea followed the movement right away (delay between showing and following <1 sec). However, after her name was sung in the song, like each group member’s name in the “goodbye” song, she walked away and stoped following, but rather went into one corner of the room and no longer participated.

All children of the group increased the number of “exactly following” during the process. In Aaron’s case for instance, the times he followed instructions grew from twice in session number 2, to seven in session number 17. Laura, in session two, followed six times exactly and in session 17 it was eight times. Andrea, the younger typical girl, followed five times exactly in session 2 and seven times in session 17.

Sub-Category 1.2. – Partly Following Instructions

Parts of the activity were not executed as requested, which basically meant that, for example, in a song with movement, either singing or the movements were done, but not both at the same time:

> Andrea did not sit down, but runs around the room, rolls on the ground and eventually starts to put together one of the mattresses. Doing that, she still did partly sing along, but would not wave.

The above example is from the “GoodBye” Song from session number 11. Being occupied with something else within the realm of the group (folding the mattress), yet still singing the song, fell into this sub-category. To examine the activities that were partly followed, and in what context this behavior stood, is highly interesting. It was observed in three different contexts: The first can be seen from the example above, when the client is occupied with something else or gets distracted within the realm of the group, but does for example sing along. The second context was when the client was not able to complete different requested features of an activity at the same time (e.g. when the activity was unfamiliar). As Aaron was mostly non-verbal, he would only partly be able to follow an instruction, such as in the “hello-song”, where he could do the movements with the therapist, but would not sing along. While one might see it as too strict to count Aaron in this sub-category for a feature that is obviously pathological and therefore may not be requested of him, an example from another session

may contradic that: In session 13, the therapist's/researcher's diary revealed that Aaron moved his lips and hummed during the "Hello Song". Therefore, it was in the therapeutic interest, and within his general capability, to follow such activities and thus was categorized and reported in the same way as the observation of the typically developing girls. A third context that was observed was when an activity lasted too long, when the clients were tired, or from plain boredom. In session 17, during the "Body Part" song, Laura would at stop the movements, go to the window and watch the others while she sang along. In the context of other activities during this session, the reason may have been because of boredom, as she had shown similar behavior during other activities. However, also being tired from the day, or an activity that was too long, may have resulted in this behavior.

Overall, the typical girls mostly showed "partly following" behavior in session number 2, which probably was mainly related to the novelty of the activities and later on was not observed during the activity. From session 11 onwards, this behavior was mainly observed when being too distracted or occupied with other things, instruments, or a certain person. For Aaron, however, this behavior peaked in session 11 (three times), while it was not seen at all in the second session and seen only twice in session 17.

Sub-Category 1.3. – Freely Following Instructions

To freely follow instructions meant that the clients basically followed the instructions, but adding appropriate, individual variations of sounds, movements, or playing, or substituted the usual practice once with these aforementioned individual variations. The crucial difference in sub-category 1.2 was that parts of the activity were not simply left out, but were either substituted or expanded, driven by the clients' individual nature, mood, or the situation. One example was found from the "The more we are together" song in session 11:

> She [Laura] sings the lyrics, but emphasizes different words of lines in her own ways (very loud, shouting them).

It should be clearly stated here, that by doing so the client in question was not doing something wrong. This was never been stated, because this sub-category and the connected features represented a crucial part of the entire humanistic and holistic approach of the process, namely creativity. The point of education is not only the communication and presentation of knowledge, but rather gives the space to explore possibilities and get creative

with the given material and objects (Light & Littleton, 2003). This is also a key factor in how we learn.

The "freely following instructions" behavior, however, was not only connected to creativity. It was also observed in the context of favoring a certain instrument, an activity, different features of activities, persons and so on, but also with going beyond the borders of an activity to make it maybe more interesting, or rather less monotonous – which especially accounts for activities that are constantly repeated, such as the "hello" and "goodbye" song. Finally, it was observed in combination with testing boundaries.

All children showed an increasing number of "freely following" behavior when comparing the three analyzed sessions.

Sub-category 1.4. – Delayed Following

A rather minor, yet important, part is the delayed following of instructions. This was seen when the client did not realize right away what was expected of him or her, as well as when further instruction was needed from the therapists, to make him or her start the activity. However, during the analysis it was decided to allow for 1 second to adjust to new requirements or start with an activity, which meant that all time gaps greater than 1 second between showing/starting by the therapists and adjustment of the client were counted as delayed following. This was due to the fact that the clients mostly reacted in less than 1 second when following exactly, but it took them mostly far longer than 1 second (everything between 1.5 and 7 seconds) when they showed delayed following behavior. Andrea was particularly "good" at that, like in the "Time to clap your hands" song in the second session:

> Everyone stands up right away, Andrea watched that, but it took her 2 seconds to realize the 'now we stand up' cue. […] As in the hello-song, Andrea has a delay when the movements change[…].

A delayed reaction such as these may have been linked to focusing on another task that had been done before a transition or different activity, especially in Andrea's case, as can be seen in the example above. However, new activities also, or activities that required a higher level of attention (because, for example, the change of movements may have been suggested within a song), seemed to evoke a delay in following. However, Andrea in particular often showed delayed following behavior; five times in session 2, twice in session 11, and once in session

17. Laura showed this behavior once in session 2 and once in session 11, but not at all in session 17.

Delayed following could be mostly seen in the first two activities by both Andrea and Laura, which meant in the “Hello” song and the “Post-Hello” song with movements (e.g. “Clap your hands” song). Even though this was seen in sessions 2 and 11, a delayed reaction could be only recorded during the “good bye”-song from Andrea in session 17, which was due to her observing Laura’s aerobic movement.

Looking into this behavior may help to investigate clients’ attention or learning, but may also tell about the overall character of the activity, as it may have been harder to execute, follow, or to understand than other activities. It seems that a delayed following could be observed in activities in which the children had to observe or listen attentively to the therapists in order to follow the activity as such. Aaron, for example, never showed a delay in the following in these three sessions, either because he started the activity indeed right away, got physical aid to get the activity started, or he did not follow the instructions at all.

5.2.2 Category 2 – Not Following Instruction

To find out why and how the clients did not follow certain instructions or activities, is at least as interesting as looking into how they did follow. While the first category and its sub-categories imply that the clients were somehow participating in the activity, this second category implies that they were not participating. As in category one, this category may give an insight about features of the activities and the overall process, as it sought to find out how, and under what circumstances, a client was not participating. It may also hold information about the client’s mindset, his daily performance, or current mood.

Investigating this behavior may offer answers or hints into the features of each activity in question, such as suitability, attractiveness, level of difficulty, as well as applicability, for this particular group setting. Without saying too much at this point, it can be stated that one of the biggest challenges of the entire process was to find activities that offer the right balance of all these aforementioned features. It had to be in principle *possible* for each client to participate and follow the instructions (with the exception of “singing” for Aaron) as well as *attractive/challenging/fun* enough for each client to participate. This does not only point to the

Aaron's special needs versus the needs of the two typical girls, but also towards age related differences between the children.

This category again looks foremost not at the *individual* level of *not* following instructions, but within the context of a group. Therefore, the three sub-categories that emerged from this main category describe this behavior more in detail: 1) Not Following At All, 2) Freely Not Following, and 3) Temporarily Not Following.

Sub-Category 2.1. – Not Following At All

This sub-category is easily explained: the client did not follow at all and stayed outside of the group's realm. There was no self-driven interaction with other group members and no reaction to possible approaches from other group members. However, it does not mean that the client did not follow throughout the entire activity. An example of that was found from Aaron in the very first activity, the "Hello" song, from session 2:

> Aaron shows no reaction to the song, looks out of the window and to his mother. […] In his mother's lap, he whines and then lays down, whining.

For the whole duration of the activity, Aaron did not participate at all. Even after his mother took him into her lap during this second session, where he is then physically in the realm of the group's center, there was no engagement with or reaction to other group members or with the song itself. Also, he was not occupied with anything else in particular; he was just there, but not taking part in the group or the activity.

However, the "Not Following At All" category does not mean that the client was not following for the full duration of a session. It may also have been, that he or she was not following at all at first but later on joined the activity. Different to the "delayed following" sub-category, the client here was preoccupied with other things in the realm of the group or the group's activity. In this case, it was sheer presence in the same room, without belongingness or togetherness. According to this, the client may have also first followed the instructions and the activity, but may have stopped and left for the rest of the activity for good.

This particular sub-category may help in investigating different points of an activity and the linked circumstances: First of all it should give insights into why a client was not participating at all, and if he or she did so for the whole activity. This, however, applied only to four activities within the three analyzed sessions; for Aaron, three of these activities were in session number 2. The typical girls always followed somehow, or did not follow in a different way (see sub-categories 2.2 and 2.3).

Another point this sub-category can give insight into, is at what point a client started to follow (after he or she did not participate from the beginning onwards), or at what point the client stopped following completely (after he or she did follow at first). This may have been for example a social or physical cue from another client, like in activity six of session 17, in the "We're swimming through the ocean" song:

> Aaron is lying next to the group for the first two rounds of the song. When Andrea comes to him to "eat" his head with the crocodile movement, he gets up and walks towards Maartje, grabbing her nose gently. […] "He gets up again [after lying down again for one round of drumming], going for the instruments and takes the cabassa, with which he runs around the room, looking at Felix and laughs.

Andrea's physical cue (making the "eating" motion) was the point at which his behavior changed. Even though he had not been participating, his activity level changed and also his way of "not following" switched into the other sub-category. An example of participating and then stopping following completely is shown by Laura in the "Good Bye" song of session number 11:

> […] She does sing along partly and waves. As soon as her name was mentioned and she sang her part, she got up on her feed and walked through the room until the song is over.

After Laura sang her part of the song and waved towards the others, she stood up and walked around, occupied with nothing in particular and not minding the rest of the group until the end of the activity. Being occupied with something else, while not following the instructions, falls under the next sub-category:

Sub-Category 2.2. – Freely Not Following

In “Freely Not Following”, the clients did not execute the activities as requested. Furthermore, there was no interaction with other group members, and the client was occupied with something else (playing, moving, singing) outside or even within the group’s realm. Even if it happened within the group’s realm, but did not show any link or attachment to the group or the activity, it was included in this sub-category. This was also the reason for the similar terminology to “Freely Following”. The “Freely Following” behavior showed some kind of connection to the activity, creative additions or substitutes for parts and features of it, or an attachment to the group as such during the activity. “Freely Not Following” behavior lacked these features entirely. A clear example from Aaron was found in “The Shake Song” activity in session number 2:

> Aaron goes to the piano and seems to look at his reflection on the blank surface, holding onto his ears and making faces […].

Looking into this behavior may tell what can be so distracting for a client that he or she would not follow the activity, for instance the client’s own reflection in the piano surface or in a window (which could be seen rather often from all clients). It may also have been an indicator of boredom or different interest, as the premise of this sub-category was that the client was occupied with something else. When the ocean drum was introduced in session number 17, Andrea at some point stopped following the members she should have observed and mimicked musically during the “Improvisation with ocean drum, metallophones and movment”:

> After she changed the instruments to the ocean drum, she was for the rest of the activity focused on the instrument and did not pay attention to the moving group member anymore.

In this case, Andrea was occupied with the newly introduced “instrument of the day” and stopped focusing on her actual task with this instrument. Even though she was playing and sitting on the mats in the middle of the group, she focused on the instrument, ignoring the group member she should have mimicked, and not reacting to the musical cues of the group around her.

Also, this behavior was observed in combination with possible consciously not following, like Laura did in the “Clap your hands” songs (without instruments) in session 2:

> Laura makes dancing movements through the room, waves her arms […]. She plays on a djembe in one corner of the room, not in the rhythm of the song, and looks smiling at Felix.

In this situation, the client was freely following the instructions ("…makes dancing movements through the room, waves her arms") and then plays on an instrument outside of the instructions, the group's realm, and the intended activity.

Overall, Laura showed this behavior only once during the three sessions, as mentioned in the example above. Andrea showed this once in session 2, twice in session 11 and three times in session 17. Aaron, who was frequently occupied with activities parallel to those of the group, sometimes with a therapist, showed this behavior five times in session 2, five times in session 11, and four times in session 17.

Sub-Category 2.3. – Temporarily Not Following

This sub-category marked something like a "break" in a client's following behavior. He or she may have been participating during the entire activity, save for a certain time period within the activity. In other words, the client started and ended the activity with the group, but there was a temporary episode of not participating in between. Andrea, for example, followed the instructions of the "Follow the leader" activity exactly at the beginning of session 11. After her first round of following and leading, however, this happened:

> After that [After Aaron was the leader] she does not seem to mind the activity or the others anymore, she does not look around or reacts [sic] to the "freeze"-cue anymore. During her second time as leader, she does not hit the hand drum anymore, but puts it on the ground and steps into it, plays it with her mouth or her forehead.

After Aaron's leading round, she stopped following the activity and the group, until it was her turn to lead again, in which she followed the instructions "freely". The points of interest were the beginning and the end of this temporary "not following" phase. Similar to sub-category 2.1, it may tell about the cues, distractions, and reasons for discontinuing to follow, but also why the activity has been continued then continued after the brief interlude.

This behavior was observed eight times in Aaron (2 times in session two, 4 times in session 11, 2 times in session 17), once from Andrea (session 11) and once from Laura (session 17).

Aaron especially showed this behavior in activities in which he participated with physical aid. That meant that the therapist would pick him up from where he was sitting or lying, physically aiding during the activity, and leaving Aaron to continue alone, but he would then stop participating again. Another case was when other things got interesting during the activity. In session 2, during the "Instrument Forest", this following was the case:

> Aaron walks together with the others on his own, sometimes stopping at the window, looking out of the window, then walking again. […] His mother takes him from the window, Maartje gives him a maraca, and he plays it briefly with his mother, before he leaves it and runs away.

In this case, he got distracted first by the window, but keeps on going by himself. When he stopped by at the window again, his mother takes him away (physical aid) and he gets a maraca to play with, which is then again abandoned.

5.2.3 Category 3 – Social Behavior

Looking into social behavior is indispensable for the social inclusion part of this approach. The social factor is inherent in the group setting and plays a big role in the dynamics of the therapy, as had been already elaborated in the review of literature. "Social Behavior" as a category is a huge concept and having only 4 sub-categories might seem insufficient. However, through the data analysis and with the research questions in mind, these four sub-categories emerged rather clearly: 1) Mimicking, 2) Sharing, 3) Ignoring/Passing, and 4) Withdrawing.

While the first two categories concentrate mainly on the individual level during the activities, the category "Social Behavior" focuses on the interpersonal level of the clients towards their group members and the therapists. It gives a broader perspective on the behavior and activities within the session, thus seeking to give more of a context to how and why a certain behavior can be observed from the different clients. This concept can give insights to possible connections to following or not following behavior, as it addresses the social circumstances of each activity, rather than the technical issues and demands thereof.

On the other hand, it may shed light on the interpersonal relations between the group members, how they are interacting with each other, and of what quality this interaction was. For Aaron, one of the most important features – eye contact/onlooker behavior and physical

contact – was recorded in the quantitative part of the analysis. For the girls however, this particular feature seemed to be of less importance, as it has not been found to be useful due to their lack of pathology. However, features like eye contact and showing regard for or towards other group members, was utilized as a code in the content analysis, especially for the sub-category "ignoring/passing", because not making eye contact for Aaron is more of a pathological issue, it may have contained interesting information when observing the typically developing girls. This will be further explained in the section of sub-category 3.3.

Lastly, observing social actions and reactions within the sessions' activities afforded insights into features like acceptance, group cohesion, membership/affiliation, and appreciation of and between the members of the group.

Sub-Category 3.1. – Mimicking

Copying and mimicking another group member or the therapists were crucial features when introducing new activities, as can be seen in the earlier category "Following Instruction". By observing, mimicking, and memorizing, the children learned the structures and requirements (movements, lyrics, phases) of the activities. Apart from this more practical view of mimicking behavior, it was also observed on non-activity-related occasions. Andrea, for example, was observed mimicking Laura within and outside of activity-related features, like in the "The more we are together" song in session 2:

> She mimics the movements of Laura, jumps on the mats like her, moves her arms like her, observing her. When Laura goes for the ukulele of Felix, Andrea follows immediately and plays on it, too. For the rest of the song, Andrea is mainly following Laura through the room and in her movements.

Overall, Andrea showed mimicking behavior nine times during this three sessions (4 times in session two, 3 times in session 11, and 2 times in session 17) that was related to Laura. This included mostly movements, as well as actions, as is seen in the example above. She was the client who copied or mimicked the other group members most overall. She partly would rather mimic the movement to an activity made by Laura than do the actual movements requested for the activity or by the therapists. This, however, mostly lead to her "freely following" behavior.

Laura showed actual mimicking behavior that was more than adapting the movements of a new song, once. In the same activity as the example above, in session 2:

> After Aaron went for the ukulele of Felix, she [Laura] goes there, too, and plays on it, strumming the strings.

Apart from copying Aaron's interlude with the ukulele, she showed mimicking behavior once more in the previous session, where she followed Andrea's example into "freely following" behavior, after she was the only client who exactly followed the instructions of the "What noise can you make?" activity.

For Aaron, mimicking has a rather different meaning. Mimicking requires taking another person into regard in order to adopt a movement, a sound, or any other action by this person. Being mainly non-verbal, body language can be a different possibility and form of communication for Aaron and for people with ASD in general, and can have a deeper meaning in terms of willingness and goal of communication for this client group (Bogdashina, 2005). Making him participate or follow through a visual cue (e.g. through a movement) thus has more of a therapeutic meaning than for example with the typical girls. One example of this was found in session 11, where he did not follow or participate much at all overall in the "We're swimming through the ocean" activity:

> Aaron stayed also during this activity at the piano, though he shows still observer behavior as in the activity before. […] When Felix proposes a movement lying on the ground, the arms swinging in the air, he looks curious at Maartje, who does the moves too, lies down on his back and starts waving his arms over his head on the floor.

In this particular case, the mimicking and thus participation lasted only for the duration of this particular movement. However, mimicking in Aarons case also lead to a freer participation, from not having followed at all. Overall, he did show mimicking behavior once in session 11 (the example above) and twice in session number 17.

Sub-Category 3.2 – Sharing

Clients who showed this behavior may have done so by sharing an instrument, a toy, another object, or personal space with another member of the group, meaning playing or being there at the same time. It also refers to, for example, having given or handed over an instrument or object freely. Sharing an object is an important point in the development of social skills of

children (Siegel, 2003) that leads children away from a certain egocentrism young children show at stages of their early development (Piaget, 1997). The way in which and what children share, may it be a physical object like an instrument or a more abstract idea like local or physical closeness, is of particular interest. In the context of this group, it may have indicated willingness, appreciation, or liking.

Andrea especially often showed sharing behavior throughout the entire process, 13 times over all, which was also reflected in the three analyzed sessions. One example of her doing this was in session number 11, in the improvisation with hand drums and metallophone:

> […] Andrea would rather play on the hand drum Laura is playing on. When Laura changes the hand drum then, Andrea follows her to the same instrument.

Even though there was the option to play on a hand drum by herself, she choose to switch and play on the same drum Laura played on and kept on playing on this same hand drum. Playing on the same instrument, especially when it is such a small one such as a hand drum, also means somehow sharing space. Though this may be a bit blurry at the edges, they were sharing an actual object. On different occasions throughout the entire process, Andrea showed sharing behavior, mostly concerning playing of the same instrument.

Another dimension of sharing behavior was to give an instrument over to another group member. Most of the activities were chosen and utilized to enhance pro-social behavior, such as sharing, having especially Aaron and Laura in mind. Laura showed sharing behavior 11 times throughout the three analyzed sessions. One of these times she played twice on Andrea's metallophone (while she was still playing on her own), but only when Andrea looked away. However, once in these three sessions, she gave over her instrument (in session 11) during the "Follow the Leader" activity:

> […] She gives the drum away to Andrea after her own turn without any hesitation and follows the new leader just as instructed.

Even though the handing over of the hand drum was part of the activity – because Andrea was the new leader – she showed no sign of reluctance while doing so. Other than that, she showed sharing behavior mostly through physical closeness or movements, or when all other group members were part of the activity.

Aaron showed sharing behavior ten times, especially in session 11 (five times in total). In session 17, he also gave Maartje an instrument he had used before, but his sharing had a more physical dimension, like the following example from session 2 shows:

> Aaron observes Felix and the ukulele attentively, following him through the room and eventually takes the strumming hand away, then puts it back on the strings. Felix takes his hand and strums together with him,[…].

In this example, an instrument was shared, but it is not the main point of the activity. The physical contact and the situation around the ukulele, especially at the beginning of the therapy process, was counted as "sharing". However, when Aaron made physical context, for example with Maartje, he would often grab or kiss her nose (from session 11 onwards) and share this closeness with her. He only showed this kind of physical contact towards the therapists, but sharing space or instruments occurred throughout the entire therapy process and actually increased towards the end.

Sub-Category 3.3 – Ignoring/Passing

A client also either ignored or skipped over another group member, did not take into regard nor look at another group member, even though the activity or situation may have demanded it. Just like "sharing", ignoring behavior might transmit a lot of information and gives many possibilities for interpretation. Thus, it is rather important to address.

Ignoring or passing over behavior was observed with Aaron, in which case he simply did not react to a therapist. An example can be found from session 2, in the fourth activity: Improvisation with metallophones:

> Aaron still is at the piano, where he calmed down even more. Maartje tries to engage him in an interaction, but he ignores her and does not react.

Even though Maartje tried to make eye contact, different facial expressions, use verbal and musical cues, he just did not react whatsoever. When Aaron showed this ignoring behavior, it looked always as though he was just unwilling to react. In the three analyzed sessions, it happened three times (once in session 2, twice in session 17).

Laura, however, showed increasing ignoring or passing behavior during the therapy process. In session 2, she did not show any ignoring/passing behavior, whereas in session 11 it was observed four times and in session 17 it was visible ten times. In each case, the kind of ignoring behavior differed. The following situation, for example, is from session 11, from the "Time to clap your hands" song:

> Though Andrea is following her [Laura] and her moves quite a lot, she does not seem to take much notice of that.

This kind of ignoring behavior in the sense of not noticing, taking another person/object into regard, or minding was seen during this session. In session number 17 however, the following situation occurred and serves as example for the majority (six out of ten) of situations with ignoring behavior, from the fourth activity (Improvisation with ocean drum, metallophones and movements):

> She finished the movements by herself, because she wanted to play an instrument again. When it is Aarons turn to do movements, she does not focus on him and asked for doing something else instead of the activity. […] She focused for a short time on playing the triangle and then started walking around, while it was still Aarons turn. There she took over the movement part […].

She showed this kind of ignoring behavior during different activities during this session, where she would either indeed ignore ("not focus") or skip over him, even though it would be his turn in the activity or in this situation.

Andrea showed ignoring behavior once during these three session, in the "goodbye" song of session number 17, when she did not react to any cue save for physical help from this author.

Sub-Category 3.4 – Withdrawing

Withdrawing was a rather minor occurring behavior and yet found to be important to record and report. This category outlined that the client withdrew or drew away from another client, a shared instrument, a situation, or space. It may be somewhat counted as the counterpart to "sharing".

This had once been observed for Aaron during the second session, when he drew away from Maartje, who had been approaching him. He did this later too, but only because of a chasing game that was implemented earlier in the process and because he had been eager to play.

Andrea did not show this behavior at all during the analyzed sessions. Laura showed this behavior six times during these three sessions (3 times in session two, 2 times in session 11, 1 time in session 17). The following situation from session number 2 shows an example of the withdrawing behavior:

> […] In the last round, she [Laura] happens to play on the same metallophone as [did] Andrea, and switches to the hand drum next [near] by. Andrea switches to the same hand drum, and Laura changes again back to the metallophone.

This example was already used in the "sharing" sub-category, but from Andrea's perspective. From Laura's perspective, it was withdrawing behavior. During the activity she later also said: "I wanna play alone on that one." Because she was not willing to play on the same instrument with Andrea, she actually changed to a different instrument. This situation was indeed the reason for implementing certain activities that required handing over instruments, or sharing space or instruments.

Even though this sub-category actually only represented Laura's behavior, it was worth investigating, because it has been observed in conjunction with sharing behavior from another client, for example that of Andrea. Also, it has been mostly (five out of six times) observed in context with Andrea and once with Aaron, which gives an interesting dimension towards other observations of the social behavior.

5.3 Results of the follow-up interviews

The main points stated by the client's mothers during the follow-up interviews are presented here, beginning with Aaron's mother, followed by Andrea's and Laura's mothers.

Interview with Aaron's Mother

Aaron's mother pointed out three main situations during the interviews in which she noticed her child's changed: 1) The Chasing Game, 2) Following Instructions, and 3) Social Attachment. When asked about any changes she noticed in her son during and after the music therapy process, one part of her answer was as follows:

> […] in comparison to the end, where he is [has] completely gotten used to you guys and he's trying the different musical instruments, he's playing around with the other kids and even following instruction and sitting in the center when asked and so on. I think there is a definite change in how he is taking instructions, so [that was] something that definitely was helpful.

In her comparison she refers to the first four therapy sessions, in which she was in the room with the entire group. These were the points she came up with when asked about general changes in Aaron's behavior.

Even though it was not mentioned in this excerpt of the interview, she described the chasing game most often and most defined throughout the talk. The chasing game that was implemented in different activities (e.g. "Follow the leader", "Instrument Forest") and was used as "Musical Chasing" activity as a post-hello song in the last third of the therapy, became an activity for Aaron outside of the therapy room:

> And another thing that I have noticed that is probably, I think very strongly coming from the music therapy sessions is this [ahm] chase game and social interaction with other kids.

She further explained that Aaron did not show any interest in interacting with other children before, but at most would be alright with them playing next to him. Some children however may not notice, that he is not able to speak or engage using verbal cues, as she elaborated more:

> And at the moment the only natural way how they engage with him is that they run after him and copy what he does and he is really keen on that. I have seen him doing this once on a playground last summer, where a group of three kids got [ah] got the interest in him and he would run away and look if

> they follow, and it was important to him that they follow and but this has increased immensely since the music therapy.

He had already experienced this kind of interplay before, on the playground as mentioned above, but apparently since then did not show this kind of behavior: ("I have seen him doing this once […]"). It had become a repeated part of his everyday life. She mentioned in the interview that she is aware of the fact, that the changes she noticed, also the one situation aside from this chasing game behavior, may have been induced by factors other than the music therapy. However, when it came to the chasing game, she stressed its importance in different places than the music therapy and actually pinpointed to it in the following quote:

> The chasing game I think is a definite change, which wasn't active before this I mean now it's like, it happens ten times per day, many times it is now the chasing game, in many situations. And it certainly has happened since the music therapy […].

The second topic she talked about was instructions in the context of motivation and duration of following: In his daycare, there is a weekly event, where people come and make some music for all the daycare groups. It means that all the children are sitting in a bigger room together and should listen. Aaron seemed to frequently have problems with this, in which the day care staff had seen a change:

> […] this music thing, where they go and sit all together and listen to some things in a group and so what changed was that he was much more willing to sit down and listen to and stay put during this times, or during when he participated in the music therapy.

But she also perceived his behavior as being more focused and calmer at home:

> I think that there was also some kind of change in his ehh kind of attention, or the way he is giving attention towards instructions but like ehh if I ask him to sit [at] the table, he would sit [at] the table for longer than usual but that's very difficult to like judge and anyway, this kind of thing also develops over time, he gets older his attention span gets longer […].

The overall ability to show more attention and focus on instructions, situations, or tasks seemed to have increased subjectively for Aaron's mother, but is also reflected in the daycare staff's reports, who keep a daily journal of his activities and behaviors.

The third part, social attachment, was not as strongly highlighted by Aaron's mother as the first two points, but should nevertheless be reported here. It partly blurs with the chasing

game behavior he showed (as can be seen in the second quote), but was mentioned also outside this context, as when she said:

> […] I think this could be something like the beginning of his social interaction of maybe someday maybe to have friends and he has to figure out how could he, okay how could he tell the other, hey, would you like to play with me, because he doesn't know how to play with people, he knows that he likes the fact that he likes it when other people are around him while he's playing […].

Being around other people while he plays is a feature she noticed in Aaron and stated clearly. However, it seems to be something important or somehow pleasant for him, even though it does not mean that these people are actually playing *with* him. But, she also said that this could be the point of beginning social interaction, which might eventually end up in making friends. She also mentioned the social interaction with other children in general, as in the second quote above.

When asked about what was surprising to her, she at first said that this project seemed very ambitious to her and that it may be difficult to see any changes. However:

> […], so this is why I am maybe a bit surprised that I have more than only ten minutes to say to you, about what I think has happened, and of course we don't know whether this was the music therapy or the daycare or or [sic] he grew up or, many things happen at the same time but but [sic] you can kind of see similarities in copying things like like [sic]... let's say this running around business is something you were doing a lot in there and playing with other kids and running with other kids and so on but .. this social interaction with other children that, I think it has been improving from that.

Even though she clearly stated that many things happened at the same time and the changes in his behavior could derive from many directions, she pinpointed a connection to the music therapy group in her last sentence. This connection can also be seen in the mentioning of the feeling of being surprised, that underlines once more the emphasis of her subjective viewpoint.

Interview with Andrea's Mother

When Andrea came to the music therapy group, she had been "in an interesting life stage, because she is at home with her father and her little brother". Andrea had not been in daycare for almost an entire year, since her mother had given birth to Andrea's younger sibling. She especially stressed two things several times during the interview, which were 1) enthusiasm for going to the group, and 2) social awareness.

Andrea's enthusiasm towards attending the group was something that her mother saw as positive:

> I noticed that her enthusiasm for coming here was very very high and so that was really good, definitely and you know with the continuation of the music […].

With "continuation of the music" she referred to the fact that Andrea started having piano lessons during the therapy process. Both parents asked for contacts for a teacher, because Andrea asked about playing piano after one of the sessions. Anyhow, even though Andrea would not tell or explain everything that happened during a session to her parents, her mother spotted different behavior in her daughter:

> And yeah, she is actually not this kind of children who actually explains what she has done, for example of days in daycare like if you ask "how are you, what did you do", she would not repeat everything but after the sessions, you know, she would starting [sic] a song or starting [sic] to dance and I would ask her "what are you doing" and she wouldn't remember, but when I ask "when did you do it" then she would say "that was in music therapy".

Andrea's being so enthusiastic and motivated about going to the therapy sessions apparently also showed in the direct aftermath of the session. She also mentioned that they very often do have music at home, played on the radio, and that she saw the music therapy as "more complementary, something like an extension where she could more like experience the music outside of home". She sees this as a reason for Andrea being also especially enthusiastic about the piano.

When asked what was particularly surprising to her, she once more came back to Andrea's enthusiasm, as well as to her daughter's social awareness:

> Her enthusiasm, you know, that was really fun that was excellent, there was nothing like "oh, do we have to", but more she would ask "okay, so do we have music therapy today?", so that was really cool, that was every day. And I guess her awareness of the social dynamics that was really interesting […].

Social awareness was a term she used to describe her daughter's behavior. Andrea would rather describe "[…] who talked to whom and in which tone and who did what […]", than report what had been done in the session. Andrea, however, seems not to have reflected on her own behavior nor was this included in these reports:

> Yeah, and she actually concentrated on how people behaved and you know what musical instruments like one of you guys were playing and that were these kind of things she has been talking about.

And further more:

> […] more kind of awareness how other people are interacting with each other and not really how she is interacting with them.

When asked to judge this behavior or give a possible reason, she answered:

> […] about her own behavior, I don't know if it is because he [sic] was not in day care during the last year or not. You know, all her life she had been more independent in her play and now we noticed […] that she is not really sticking with the group and so I don't know… it is really more her enthusiasm about coming to the group but also it is more about her social awareness.

She stressed the social awareness again, in combination with the fact that Andrea apparently is rather independent in her play and also might "not really stick with the group". Besides her enthusiasm to go to this music therapy group, she also said that going to the group twice a week seemed to be important for her and she "naturally made a really good friend", by whom she was referring to Laura. At this point it is worth mentioning, that when Andrea and her mother came to the interview appointment, Andrea was very disappointed that Laura was not there.

However, through the interview she was not able to exactly name any behavioral changes, except for a particularly increased interest in the piano and the resulting piano lessons, and the observation of Andrea's enthusiasm towards and social awareness of the group.

Interview with Laura's Mother

The interview with Laura's mother was short (around 5 minutes) and so were her answers. Overall, she talked about musical things concerning her daughter and did not mention social or relational behavior at all. When asked about general changes she could see in Laura during and after the process, she answered:

> She is much more interested into music now, so when she wrote to Santa Claus, she wrote in there "a piano" and "a violin" so, these things. Also she has been trying to make her own instruments [at home], so she has been trying to get sounds out of different things. Like when you have a box of cereal, like with a shaker.

Music and musical instruments seemed to be more on Laura's mind since the music therapy process, but she did not otherwise mention any particular behavioral changes at home or at

pre-school. When asked about the last session, where the parents were in the room for the last 10 minutes, if something was particularly surprising to her, she answered:

> Not in the moment, but afterwards she was upset because the last sound she made, it was not the sound she made, she was just thinking and did not know yet, so she was really upset that she couldn't make the sound. And she wanted me to tell that to you.

She is referring to the "What noise can you make" activity, where Laura was asked for a noise but could not come up with one right away, so that her words "I don't know" were used to make a song. This seemed to upset her in a way, that she told her mother to tell the therapist/interviewer during this follow-up meeting. It should be mentioned shortly again, that the follow-up interviews were conducted almost two months after the final session of the therapy process.

Apart from that, she mentions that Laura's grandparents have a piano, in which she showed more interest since the therapy process. Also, she would more frequently play with a piano application on her mother's iPad. Her overall impression of the process, however, was "really great".

The interviews with the clients' mothers after the actual therapy sessions served their purpose for this study in such a way, that they gave an outside view of the entire process, as well as partly completely new angles to look at the data. Furthermore, the statements give new meaning and contexts to some of the behavior that could be observed during the therapy sessions and that were extracted from the qualitative content analysis of the sessions. In the following section, both types of data were connected to each other, as well as with the literature that informed this study and with the findings that emerged from it.

6 DISCUSSION

6.1 Method

Using three video recorded sessions as a starting point for the data of this study seemed at first to be a systematic, strategically smart thing to do. During the transcription and after the analysis it seemed to be a large amount of work for only being able to catch a glimpse into what was actually going on in the therapy room. Being guided by the research questions helped a lot during the analysis, even though many things emerged that could and should be investigated further. However, looking into the behavioral features as it has been done still seemed to be the most applicable method for this project. The additional information gleaned through the follow-up interviews with the clients' mothers, as well as some insights from the therapist's diary, helped immensely in making sense of the data. It also gave a clearer picture of some issues during the process. As stated, this author is sure there is a lot more information in the video recordings to be found, which could be analyzed and elaborated upon, but this first exploratory glance into this topic may be a starting point. The categories and sub-categories that emerged from the content analysis at first seemed a bit confusing in that they were unexpected. As the content analysis followed an inductive approach, the categories and sub-categories that came from the analysis were not set before the analysis. Over the process of the analysis, they somehow became clearer and clearer, and eventually gave some sense to what was observed and what this author had experienced in the therapy process.

6.2 Results

The aim of this study was to explore challenges and possibilities that emerged from a mixed group of typically developing children and children with special needs within a music therapy setting. The information inherent in the raw data and in the entire process of this approach and the therapy process is immense. To explore its entirety exceeds the capacity of this thesis by far and thus only a small part has been taken into account. First, this section will take a look at the literature that informed this work; second, the results of the analyses shall be discussed.

In terms of the clients' pathology, this approach showed a diverse outcome. As both boys were diagnosed with Autism Spectrum Disorder, the therapeutic part of the sessions was rather focused on their needs. However, the different needs and levels of severity of both children is reflected in their individual outcomes: Victor had to be taken out of the group in the starting phase, because his needs could not be met through a group setting at all. Aaron, on the other hand, seemed to be profoundly adjustable to the new situation and towards the end developed a certain social behavioral pattern – namely the "chasing game" – that he showed also outside of the therapy room. Especially issues concerning social development, as is, among others, characteristic of ASD (APA, 2013, could be targeted rather efficiently with this therapeutic approach. The environment, that is already part of common sense in educational contexts, apparently shows advantages also in a therapeutic context, if the caretakers are properly prepared (Friend & Bruck, 2012).

On that same note, it could be stated, that the features of group therapy, such as self-awareness within a group of peers and other relational contact, rather than only with the therapist (Schaffer & Galinsky, 1989), also show their impact in this setting. Schaffer & Galinsky, as well as others (e.g. Ahonen-Eerikäinen, 2007; Ashbach & Schermer, 1987; Foulkes, 1964) write in the context of a group consisting completely of people in need of therapy or with a certain pathology, not within a mixed group of children with special needs and typically developing children as in the setting of this study. This approach adds the possibility of modeling through the typically developing children, which can be mimicked by the children with special needs. Also, this brings the therapy environment closer to that of an inclusive day care or school environment, which might be more natural to the children and may make it easier to adjust.

An issue that seemed to emerge during the therapy, and which is reflected partly in the sessions' analysis, is the age of the participants. All clients except one were 4-years-old; Laura however turned 7 during the process. The studies cited in the literature review on early music education (Part 2.4) reported on working with children between 1 and 5 years of age (e.g. Chobert et al., 2014; Kirchner & Tomasello, 2010; Kraus et al., 2014; Putkinen et al., 2014). Andrea, the 4-year-old typically developing girl, did not show any obviously different behavior towards the various group members, whereas Laura, who was 7 years old, showed partly distinctive behavior towards Aaron. The reason for that cannot be pointed out exactly

and making a generalization based on age cannot be made. However, this is an interesting fact that could be looked at more in detail in the context of an approach such as this one. On another note, however, the developmental differences between the two girls were rather obvious and such a thing has to be taken into account in further applications of this model.

The concept of *inclusion* – that "all children are fully accepted members of the learning communities in which they participate" (Mallory, 1994, p. 58) - could not be implemented completely. As can be seen from the increase in Laura's ignoring behavior towards Aaron, one cannot say that he was a fully accepted member of the group, according to Mallory's (ibid.) statement above. How far his own willingness to participate does influence inclusion is questionable. If he is not willing or motivated to participate, it does not necessarily mean that he is not included in the group, especially if his behavior was accepted by the other members. Nonetheless, the willingness to participate in the activities and to interact with the other group members might have made including him easier. The idea of social *integration* is completely achieved through this approach, meaning that the mere being of children with special needs in the same learning environment as typically developing children is the goal (Odom & Diamond, 1998).

In any case, the social inclusion part also had an effect on the typically developing girls. Laura, as mentioned before, showed increasing ignoring behavior towards Aaron, which may even have fostered a feeling of difference towards the boy with ASD. Indeed, this was a negative development, which should be researched more closely in future studies to find possible contraindications or solutions for it. Andrea, on the other hand, did not show particularly different behavior towards Aaron, which might indicate her full acceptance of him as a group member and would support the inclusive idea of the study. Like the boys in question with the pathology, the typical girls seemed to go in differing directions when it came to the inclusion factor of the approach.

It seems that through this approach, the positive effects of music therapy, group therapy, early music education, and inclusion can partly be utilized, even though some of the ideal goals could not be reached, especially when it came to social inclusion. Now, however, the results of the analysis shall be presented more in detail, to give an additional angle to the subject.

In terms of eye contact, there was a visible increase in activity to be seen in Aaron as the process progressed. Maartje, the female therapist, was the one with whom he made the most eye contact, both in number and duration. This may be related to the fact that in the first part of the therapy, Maartje was his main person during the sessions, as it was her role from the beginning to mainly take care of him and Victor. When the strict roles of the therapists were loosened through the process, his attachment to Maartje remained. Nevertheless, his regard towards the other group members and this author, the male therapist, increased as well, though not in the same way as towards Maartje. Interestingly, his eye contact and onlooker behavior in session 11 suggests a higher regard towards the therapist, while favoring Maartje over this author, but session 17 leaves Maartje in the lead while the other three are quite equally often regarded.

Aaron obviously still had a key person within the group, who was Maartje, but over time he learned to take other group members into regard equally as often. This could be due to him adjusting to the situation and eventually the social group as such. A hint of this was also found in his participation, especially in the playing and participation without physical aid. He was increasingly self-motivated to partake in the activities, and actually showed a higher participation in activities with a more social component, such as the musical chasing, rather than more musical activities such as improvisation. Also the times in which he followed instructions exactly increased at the end of the process, which seconds the findings of the quantitative data and is additionally implied in the statements of his mother during the follow-up interview, when she pinpointed that he would follow instructions better and for longer periods.

The social component for Aaron can be also highlighted from the content analysis of the three sessions. Sharing, physical contact, chasing, and mimicking are elements that were found in almost every session. Even though physical contact for instance was something that was almost exclusively reserved for Maartje, sharing, and especially the chasing behavior towards the end of the therapy, was something he showed more equally towards all group members. A physical cue from another group member would also activate him, like in session 17, after Andrea came to him to “eat is head” with her arms, as she had also done with the other group members. After that, he began to participate a little and at least showed more onlooker behavior than before. Also, his eye contact in session 17 was highest for the two activities that

had some kind of chasing included, during which he was most active with all participants. According to his mother, he implemented this chasing game outside of the therapy room as well in his everyday life, where he plays it often and with whomever wants to play with him. This may be an incredible generalization of the social behavior he had apparently most frequently shown first in the therapy. His mother called it a starting point for him for maybe progressing to making friends at some point.

What maybe comes first to mind is that all children showed increasing behavior of freely following instructions, which means that they do follow, but with additional or substituted movements, sounds and so forth. It is a development that should be seen as positive, because it may stand for creativity within the boundaries of the instructions. At first, this could be seen in often repeated activities or songs, like the “hello” song or the “the more we are together“ song. At the same time, behavior like partly following the instructions had decreased in these activities, but when it was observed it was mostly to do with being otherwise occupied, or when Andrea, for example, concentrated more on what Laura was doing and due to this may have forgotten to sing along.

It may also point towards the open atmosphere, and that the girls felt more comfortable throughout the entire process as well as in the ongoing learning process. Both girls grew more comfortable with instruments, were curious, and developed certain favorites (metallophone, triangle), over which rivalry sometimes emerged, as was observed in session 17. This may have been also reflected in the social behavior. Andrea especially showed an increasing number of sharing behavior, as well as mimicking, towards Laura. This observation was seconded by her mother’s statement when said that Andrea made a really good friend in Laura.

In the same sense, Laura showed more sharing in the context of activity requirements, i.e. when she had to switch an instrument in order to proceed with the activity. She was very keen on playing on her own from the beginning of the therapy, and through certain implemented activities, or just giving one instrument option for all children, her sharing behavior towards such things increased. Anyhow, she still took chances to play alone on her favorite instrument, if the opportunity arose.

It was also visible in the content analysis that her ignoring/passing over behavior, especially towards Aaron, increased during the process, which outlines the first challenge that was found. While she included all other group members during her round in the "We're swimming through the ocean" song, she skipped over Aaron. In the improvisation with metallophones, ocean drum, and movement, she did not focus on Aaron during his turn, and eventually started making movements when it was his turn to do so. This implies that she maybe did not see Aaron as a full member of the group, or regarded his participation in the sessions less than the participation of the other group members.

Her behavior seemed to underline one of the crucial parts of this therapy approach that actually should have been eliminated: difference. One aim of the social inclusion part of this approach was to decrease the feeling of difference between the typical participants and those with special needs, as well as to highlight the possibilities of all members to participate together in their individual ways, which, in conclusion, should not have outlined the idea of difference to the typical girls but rather enhance the feeling of sameness. Laura's behavior towards Aaron implies that this has not worked out in her case.

In one typical participant's case, the need emerged to rethink how to approach this problem. Due to Aaron's pathology, the therapists overlooked certain behavior (climbing, not participating, roaming around etcetera) for which the typical girls would have been called out on. The therapists realized this during the process, but could not find an effective way to change this situation. At two points during the therapy, in session 10, the therapists tried to communicate Aaron's different needs in a way that they tried to explain that everyone may have different preferences and skills, so Aaron is sometimes not able to follow the session in the ways the two girls can. After this approach, Laura stated that she did not understand it. This might have actually increased the feeling of difference towards Aaron for her.

That also means that this challenge can be seen as a chance to make it better from the beginning as well, in ways that the communication of these matters may be done differently. However, as this was additionally a learning process for the therapists, Laura's behavior was likely even enhanced through the difficulties of communication from the therapists' side; an issue that could be prevented in a possible new approach to such a setting.

Another challenge that emerged from this process, but was taken into consideration from the very beginning of the planning, was the suitability of the activities. As clients' abilities are always different, activities had to be chosen according to their capabilities, as well as to the goals of the therapy. However, in this setting, the possibilities of the clients differed quite a lot. Finding adequate activities that did not bore the typical girls, yet made it possible for Aaron to participate, was an important feature of this approach. When looking at the results, Aaron's participation increased during the process. The activities were chosen and conceptualized according to his needs and his role within each of them, as well as the expectations of the therapists being discussed before each session. However, certain activities or parts of activities were very hard for him to do or follow, for example, singing along, which was no issue for the girls whatsoever. At the same time, the activities should not have been too "easy" or too repetitive for the girls so as it would not be boring for them. Finding a balance between these two factors was extremely difficult. Yet, it was apparently possible to implement features in the activity that were easier for Aaron to follow.

It can be seen that freely following behavior had increased in the girls and that "not following at all" could not be observed in them. The "freely not following" behavior, meaning that she was occupied with something else and did not participate in the group's activity, only increased during the process for Andrea. Also, temporarily not following behavior could be observed only once from each girl. This may imply that there was almost always something in the activities or in the group that made them participate, even though Andrea showed more of the "freely not following" behavior towards the end. In her case, this was during the activity with the ocean drum, with which she was occupied, and during the "goodbye" song, which was in every session. So it could be argued, that this behavior was due to her personality and the repetition of the activity, rather than due to the activity itself. However, the challenge of suitability remains.

A sure enough challenge or even limitation of this approach can be pinpointed in the meaning of "special needs". Actually conceptualized for a mixed group with typically developing children and children with special needs, it was a mere accident that both children with special needs were diagnosed with autism spectrum disorder, and were both non-verbal. This very target group obviously gave an additional "thrill" to the approach, because social inclusion targets one of the biggest issues of children with ASD: social skills. On the other

hand, having both boys with autism in the group at the beginning, gave valuable information about and perspectives on the approach.

Plainly put, this approach was not the treatment of choice for Victor. Due to his condition, it was not possible to effectively engage him in the activities, not to mention the group. In his individual sessions, he could make more appropriate progress and it was without a doubt more beneficial for him. In that sense, this approach was not made for him at this point.

For Aaron, however, who showed less severe pathological behavior than Victor, this approach did support his social skills in a way that he, for example, plays the chasing game that was part of the therapy towards the end of the process in the outside world with different kinds of people. His mother's explanatory statements underline this. So, it may be said that this approach is more fitting for Aaron, who actually seemed to have benefited from the social part within this group.

If the special needs clients assigned to this group had had other kinds of special needs, the entire approach, choice of activities, group dynamic, and outcomes might have been completely different. Thus, this study does not offer a guideline that can be applied to every mixed group of children. The challenge is to take the idea of social inclusion as a frame, adjust it to the target group and the children's specific special needs, and apply it in suitable ways for the whole group.

This offers flexibility and eclecticism at the same time, but an even more important possibility: It offers a social inclusive group that does not only consist of children with certain pathologies. Being around typically developing children is one of the main arguments for social inclusive daycares and schools. This setting in a therapeutic environment (and not necessarily only a music therapy environment), possibly enhances therapeutic goals linked to social skills and pro-social behavior more than therapeutic groups consisting exclusively of children with special needs. Even though Aaron did not show a very large amount of mimicking behavior, he adapted playing behavior - the chase game - that emerged within the music therapy sessions, and utilized it outside of the therapy room. Probably the biggest difference between this therapeutic setting and him being at daycare with a caretaker, is that the group was very small, and therefore the care was more targeted. At the same time, the

sessions were also rather short. Therefore, this approach may also offer a different angle for educators in inclusive institutions in utilizing the environment and the typical children even more, while aiming for a better inclusion and skill development for the children with special needs.

However, it is not only a possibility for children with special needs. It is only fair that the chances this approach offers to typical children are equally diverse. Being around children with special needs may raise typical children's awareness, but also make them learn that pathological differences are no big deal when it comes to playing and being with each other. Laura might have shown contrary behavior, as mentioned already before, but it has to be taken into consideration, that she was the oldest member of the group at seven years old and three years difference at that age is quite a gap in children's development. However, Andrea did show sharing behavior rather often, which always included Aaron if it came to the whole group, but also towards Aaron individually. This may indicate that, even if she might have recognized a difference between Aaron and the rest of the group, she did not seem to be bothered by that and was willing to include him in play. Thus, it is the task of the therapist to communicate such issues properly, if these differences seem to be a problem at all.

Apart from the possibilities for the social development of the typical children, this setting offers a preventive educational factor as well, as was elaborated on earlier in this work. The fact that both the typical girls showed increased interest in music and musical instruments according to their mothers, and Andrea actually started piano lessons while the therapy process was still ongoing, seconds this assumption. As can be seen from the review of literature, the influence of playing music, either together or alone on an instrument, can have several positive effects in terms of development in general for children of such a young age. This is something that cannot be seen from the data of this study for certain, but this development during the therapy may be seen as a starting point for a possible further use of music for the children.

When looking at the different activities, as one of the research questions was to find out what kind of activities may be most fitting for this setting, it is on the one hand hard to answer this question, though on the other it has been partly answered already: Activities should have the right balance between suitability for special needs and therapeutic goals, and challenging

enough to make it interesting and worth doing. Especially for the latter, the fun factor should not be forgotten, for both typical and special needs children. In the case of this group, creative activities, where the children had to come up with their own sounds or movements, were the foremost effective activities, as well as those that included chasing, leading/following, or interesting instruments for both groups of children. One thing that might have been underestimated during this therapy process was the power of a preferred or popular instrument. Most sessions were built around one main instrument; the instrument of the day. Only in one of the last sessions did the children get to know the ocean drum, or the big bass drum. Both of these two highlights, and especially the session with the big bass drum, were marked by a focused curiosity from all children. The crux, however, seems to be: the activity should be suitable, challenging, and fun to do.

6.3 Validity and reliability

Recording of the sessions had been made via one camcorder and a mobile phone camera. Nevertheless it was not possible to record every corner of the therapy room, which means that some of the events are simply lost to the observer. The possibilities of analyzing the collected data for this study immensely exceeded the possibilities within this work. Thus the analyzed parts represent only a small part of the process and as such may only touch the surface of the information within. A technically better-equipped room could have fixed the data collection problem.

Later on, the sessions were transcribed by the therapist/author. Through the cooperation with another researcher or assistant, the transcribed data might have gained reliability, but was not possible within the frame of this work due to time constraints.

The content analysis of the transcribed sessions might have produced a different outcome from a different angle, but looking into the behavioral patterns of the clients seemed to be the most approachable and – according to the research question and purpose of the study – most fitting way to do it. However, the data had a few features that could have been analyzed in a quantitative way, which was done as described in the data analysis section. The mostly qualitative character, however, in combination with the small sample and lack of literature on

this approach, made the study rather exploratory and gives it also the character of a case study.

In practical ways of the group dynamic during the sessions, the following should be taken into account: Due to sickness or traveling, Aaron missed one session, Andrea missed two sessions and Laura missed five sessions. Because Laura was traveling with her parents for two weeks, she missed this many sessions, which was from session 6 to 10. This has to be taken into account, because Andrea and Aaron spent these sessions together as the only group members. However, when Laura came back, the situation changed only in the way that the sessions were sometimes a bit more chaotic, but an actual disruption of the process was not be perceived by the therapists, yet cannot be disregarded.

The therapist's/author's diary has not been taken into account very much, save for the few lines that have been quoted briefly to explain changes in the session's structure or therapists' stance. For the results part, however, it has been excluded to give it more objectivity.

The follow-up interviews with the mothers however played an important role in terms of getting a different perspective from outside of the therapy room and thus affording triangulation. As additional data for this study, it was an invaluable source for evaluating the findings of the observations, especially concerning Aaron, but also to estimate the outcome for the typically developing girls. Being able to connect the findings of the content analysis of the observation and the statements from the mothers makes the study more valid, which can be an issue when the researcher is simultaneously the therapist.

Yet, when it comes to reliability and reproducibility, this study had a highly explorative character and due to the very different characters and unique needs and skills of the clients, the results are hardly reproducible. Nevertheless, it is possible to repeat this setting of a mixed group and repeat the same method.

6.4 Future studies

This approach holds a lot of possibilities for all participants, but – as shown in the discussion of the results – highlights at least as many points to be executed differently.

First of all, the special needs children's assessments should be given more time. In this case, both boys with autism had only one assessment session with the therapists and then went straight into the group process. Aaron managed to cope with the new situation rather quickly, while Victor was not able to adjust to the unpredictability of the group environment fast enough. The individual process was the right choice for him in the end, as his goals were different to those of Aaron, and had not much to do with social skills. After a longer individual process, it might have been possible to take him into a group setting, if the goals were to change towards this social aspect.

This leads to the next proposal for further research in that area. Children with ASD might be the perfect target group for this group setting. It certainly worked out for Aaron in positive ways, and thus children with ASD are definitely an appropriate target group for this approach. However, Victor is an example that it may not work due to a more severe case of autism. So, this has to be taken into consideration. This approach might be also - or more suitable for - other client groups with special needs, but with a less severe pathology, like children with bodily impairments, learning disabilities, Down's syndrome, and so on. Each of these groups might have its own challenges as well as their own possible benefits by using this approach and might be worth investigating in the future.

One feature the process lacked, though it would have been the right place for it in terms of action research, was a supervisor or co-worker in the room from the education field. Either someone from music education, special education, or education as such would have been a helpful source of additional knowledge. Because both therapists in the room with the group were music therapy students, the process was mostly seen from a music therapy perspective and thus very likely unbalanced. Having a music therapist and for example a music educator in the room with the group, might have led to a completely different outcome. However, in such a hypothetical situation, the roles probably have to be negotiated on a different level as well, just as the therapists in this study were going through a process of learning and negotiating their own roles. But, as this approach combines both fields, the big chance also is an interdisciplinary cooperation for the execution.

When it comes to the data collection and analysis, a peer observation or evaluation would be very beneficial, partly for the same reasons as why it would be good to have an educator on

board, and partly because a peer gathered dataset would give higher validity to the study as such.

Overall, 18 sessions was a good duration of the process to explore this mixed group setting and still the group process could have been longer, taking into account that half of the group members did not have a particular pathology that needed therapeutic interventions. The more the children with special needs got used to the situation, the more it might also have been possible to challenge them with their peers and balance the activities and tasks in a way that there is was general process for all participating children. A longer process may enhance the effect of the social inclusion as well as strengthen the effects of the musical education and thus the possible preventive effect of the music part.

7 CONCLUSION

The focus of the study was on the practical implications of combining music therapy, music education, and social inclusion. All three fields and terms have positive practical applications, and it was the goal to combine them in such a way that the benefits and advantages of these different fields would blend in the most positive and useful way. When looking into the practical implications concerning the research questions, the results do imply there is yet some way to go in developing the approach.

A mixed group such as this should be formed carefully, with a thorough assessment of the possible participants beforehand. On one hand, that may help to keep the group going, as the level differences can be estimated in advance. On the other hand, the activities and interventions should be adjusted according to the needs of the clients, the abilities of all participants, and the level of development. In the context of this approach, such apparently basic considerations gain importance, because it might make it easier to highlight commonalities rather than differences, and the flow of the sessions might be easier to maintain.

Activities should be chosen according to the clients' abilities, but should also be challenging enough to make them worth doing. The balance between making it possible for the boys with autism yet not boring for the typically developing girls was something we as therapists had to learn rather quickly and through trial and error.

In that sense, the outcome of the therapy can be seen as very positive for Aaron. He seemed to react rather easily to musical cues and was also receptive for group activities. In the therapy process, he showed increasing eye contact and onlooker behavior towards all group members, would participate and play more often without physical aid, and became overall calmer and more patient. Towards the end, he also started to initiate games with others on his own. In the interview, his mother did report some of these changes in her son also outside of the therapy room, especially concerning the social implications (playing the "chasing game"), patience, and following instructions. Furthermore, he has been assigned to music therapy after this therapy process and will continue his process in individual therapy.

Even though the focus on the educational part of the study was somewhat lost, some implications could be found and – as valuable as actual findings – the missing bits can be pointed out and proposed for further research. So, the cooperation with a music educator or special educator was something this study lacked and likely would have benefited from. It might be possible that behavioral findings e.g. in Laura, who showed increased ignoring behavior towards Aaron, could have been avoided with the consultation of an educator. Nevertheless, the outcome for both girls can be seen as positive and, according to the results of the analyses and the mothers' interviews after the therapy, both gained something from it. Andrea even started piano lessons during the therapy process, for she showed particular interest in that instrument. Also, she developed an attachment to all participants equally, while she furthermore found a friend in Laura.

For both therapy and educational research fields, this study holds some interesting points and ideas, which could be researched further. More focus could be put on the educational part, as already mentioned above, but also the therapeutic impact of this social inclusion therapy approach could be looked at with different pathological groups. As stated in the discussion, children with ASD might be not the most fitting target group for this approach, even though the results with at least one of the clients were quite promising. However, looking into a mixed group with for example physically impaired participants, or children with different, less severe special needs, might be highly interesting. The implications from such inquiry also for the education field, schools, and kindergartens, could be highly valuable.

However, an important lesson that was learned throughout this process was that the most important part of the therapy first and foremost is the client. As this therapy process was a clinical internship as well as an experimental group for this thesis, the research part should always support the interests of the clients. For this reason, we removed Victor after four sessions, nor were Aaron's differences verbally addressed on more than one occasion in the entire process. In that sense, there may be many more possibilities inherent in this approach, but for us it was maybe not possible to take advantage of them, or explore all of them, as we were primarily clinical interns, who took responsibility for our clients, which was a wonderful thing to do.

I am convinced that this approach holds great potential and I truly hope that this idea of such a setting in music therapy may be picked up, for the benefit of both groups of children (typically and non-typically developing) might be profound in ways that we have just not explored yet.

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