



Music Department

Orchestrating Children: Music in the Pre-school Day

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Abstract:

This dissertation examines the effects of music on children in a pre-school setting. Drawing on interviews with teachers, on-site observation, and two child-based studies, it explores the potential of music for structuring behaviour and facilitating the effective orchestration of the pre-school day. Most of the research was undertaken at the Brilliant Stars International Primary School and Kindergarten (Bratislava, Slovakia), but comparative interviews were also held with other pre-school teachers in Slovakia and in the UK.

Several key themes regarding the effects of music on children in the pre-school environment emerged from this research. In this dissertation these aspects are grouped under the themes of comfort, autonomy, relaxation, expression, connection and confidence. The research highlights how children's behavioural and emotional responses to music, support the potential for using it at a structural level to orchestrate daily activities. Through a discussion on appropriateness and the role familiarity plays within musical choice, it is shown how music may reinforce routines or transitions between different forms of activities, and promote a more conducive learning environment.

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1. Introduction:

Music, Child Development and Creating an Environment

Music has been used for centuries to create environments, from the earliest uses of percussion based music, considered to have been used in religious ceremonies, to the psychological use of music to mediate mood in elevators.

“The essence of an environment is that it surrounds an individual” (Gibson, 2014: 37). Many identify music to be one element into creating an environment, the statement above, supports the claim of music *being* an environment and therefore something we move through rather than observe from a distance. This offers an alternative understanding of music and its uses in not only creating an environment, but also its capacity to ‘orchestrate’¹ a routine. A learning environment, such as a pre-school, may be argued, is dependent on perception and cognition. *Cognition*, identified as being constructed through ones senses coupled with personal experiences, and *perception*, enabling us to discern the spaces around us and therefore realize our environment. (Brizendine and Shoffner, 2008; Brizendine, 2010) identify environment to have great capacity to induce responses, particularly behavioural ones. They identify predispositions of positive and negative behavioural traits to be present within people, however, argue that in order for them to be manifested, environmental stimulants are required.

Sound is often one of the primary elements that make up an environment. Murray Schafer (1994), coins the term ‘soundscape’ to refer to the sonic elements present in any space. He recognises the sonic environment to be malleable and constantly changing, presenting the possibility of moulding the sounds around us to create particular types of environments. Accordingly, this dissertation will explore some of the ways that sound may potentially be used to shape and regulate the pre-school environment, through the use of music.

¹ A term coined/investigated by Stobart (2006), in his exploration of the Bolivian Andes, specifically the means through which they use music to orchestrate their year.

“music has transformative powers, it ‘does’ things, changes things, makes things happen.” (Tia DeNora, 2000: 48)

This dissertation will examine the active sonic environment and the capability of music to provoke particular responses within this environment. A primary advocate for this claim is Tia DeNora, who has identified music’s potential to cause discernible responses, even if the precise mechanisms by which music brings about some of these reactions have yet to be definitively identified (DeNora, 2000). Therefore, drawing on both primary and secondary research, this dissertation aims to determine the extent to which pre-school children’s emotions, behaviour and actions can be influenced by music, and how much musical interventions may influence and structure of the pre-school environment. In order to do this, it is first necessary to identify key developmental factors of children within the 2-6 age range, and to introduce my methods and the specific pre-school setting.

1.1 Pre-school: the 2-6 age range

According to psychological theory, among young children self-awareness is one of the core developments, alongside identity and self-esteem, which contribute to the development of the self. Before developing understanding of others, psychologists believe one must first become self-aware. Children at the pre-school age are assumed to have acquired self-awareness.² The development of self-awareness may be shaped in different ways according to cultural context. For example, Keller et al. (2005) found that as independence is promoted in individualist cultures, where the child is taught to take pride in the fact that they are distinct and different from others, the focus on ‘me’ seems to induce an earlier understanding of the self. By contrast, in collectivist cultures, which tend to focus on group belonging and the importance of being part of a group rather than individual, the development of self-awareness may take longer. Here, however, body self-awareness seems to develop faster. The correlation between body self-awareness and mirror self-recognition suggests that these two aspects are linked. As I will discuss in chapter two, researchers have claimed that particular forms of musical activities can aid in the development of both body and self-awareness.

Social cognition is the mutual recognition of others’ thoughts, and has a close connection with empathy. Social and cognitive information is often processed through facial

² Self-awareness may be identified by psychologists through a range of tasks, such as the Mirror Task of selfrecognition (Gallup, 1970), Trolley Task for body awareness (Moore et al. 2007). See Duval and Wicklund (1973) for an in-depth analysis of child development in relation to the awareness of the self.

expressions, and Warneken and Tomasello (2007) found that prosocial behaviour, such as helping and cooperation, have appeared in infants as young as fourteen months. Similarly, Brownell et al. (2012), found signs of sharing in two-year-old children, however this was only if the adult stated their desire. These signs of social development in such young children could imply a capacity for prosocial behaviour, but that needs to be learned/taught. The preschool age and setting, with its new and probably unprecedented opportunities for social interactions with peers, is therefore a prime context for children to develop pro-social behaviours such as sharing, justice, helping, and cooperation. Similarly, my primary research suggests that the education of such pro-social behaviours is closely coupled with the use of music, as a means to reinforce learning and forms of practical development, and therefore further engrain such learning into the children's understanding.

Swiss psychologist Jean Piaget (1896-1980) developed a Cognitive Developmental Theory (1936) based on observations of children trying to solve problems (Piaget, Elkind and Flavell, 1969). In realizing there are different patterns in children's thinking, related with age-specific ways of understanding the world, he approached cognition as built in progressive stages that follow a certain order, where each is important for the emergence of the next. Piaget proposed that all children up to adolescence, go through three main stages of development, each with qualitatively different ways of thinking. In the first, infants rely on their sensory and motor abilities to learn about the world. Secondly, through pre-school age, children begin relying on mental structures and symbols, especially language. And thirdly, building on these mental structures, children come to rely on logic and then to employ abstract terms. Piaget identifies children aged 2-7 to be going through the developmental preoperational stage, during which 'egocentrism' – the inability of differentiating between one's own view opposed to that others – is a key feature. Though this trait is present in people of all ages, it is especially notable in the pre-school years. Piaget's theory continues to be authoritative, but Slater and Bremner (2011: 308) suggest that the precise years that each stage takes place are miscalculated. Nonetheless, as egocentrism is visible throughout one's lifespan, it can be still identified as a relevant trait. In turn, the use of music – with its assumed emotional impact, as will be examined in chapter two – may be a helpful tool for aiding children to understand their peers, and therefore further develop their social interactions.

1.2 Why Music?

“The capacity of music to evoke emotions is no doubt a primary reason – perhaps the main reason – that people listen to music” (Woody and McPherson, 2010: 403)

The use of music, as opposed to other arts and educational techniques, within the pre-school is a key aspect explored in this dissertation. This also raises the question: what particular features of music might make it valuable resource or tool, for eliciting productive emotional and behavioural responses from children or for orchestrating activities, in the pre-school environment?

One aspect of music’s facility as a tool in the pre-school environment is its relatively limited tendency to reinforce gender stereotypes. According to Hallam et al. (2016), gender differences are not significant (if at all present) in music preference, making it inclusive and relevant for all children. By contrast, from an early age, looking behaviours suggest gender-typed toy preferences (Serbin et al., 2001) and understandings of gender and gender roles are reflected in peer preferences.³ Much work has been undertaken on environment/nurture based causes of gender preferences, such as parental influences (Caldera et al., 1989; Smith and Lloyd, 1976) and cognitive approaches, such as gender-schema theories (Martin and Ruble, 2004).⁴ This research highlights the potential impact of peers, parents and teachers on the development of children’s gender preferences. It should be noted in passing that even if music itself does not tend to emphasise gender preferences, musical preferences may similarly be shaped by peers, parents and teachers.

Self-esteem is another highly debated subject in the psychology and educational spheres. Robins and Trzesniewski (2005) investigated trends of self-esteem throughout the span of a person’s life. In childhood, self-esteem is quite high, however as the child gets older into adolescence there is a severe decline. Educational interventions, such as a peer-led self-esteem program by Kaveh et al. (2014), have been found to be very successful in increasing self-esteem. Just as the presence of high self-esteem may illicit greater confidence in music

³ Hyde (2014) argues that males and females are similar on most psychological variables, in a study on the toy preferences of rhesus macaques, the infant monkeys showed gender differences, supporting gender toy stereotypes.

⁴ First introduced by Bern (1981), gender schema theories suggest that the culture and environment we are raised in, influences our understanding of the roles of males and females within society. This in turn affects our behaviour in relation to the cultural norms present, thus creating a behavioural loop.

making, the use of music to build on self-confidence may aid in supporting the stability of self-esteem.

DeNora (2000: 50) has suggested that a person's first associations with a piece or genre of music often stick. This stresses the importance of first musical encounters, where – if not positive – a person can develop negative connotations with such music. The youngest children at pre-school have not yet been presented with a range of musical styles, it is therefore a particularly sensitive period where one is able to control the setting when introducing pieces of music. Nonetheless, it is important to stress that even the youngest children arriving at pre-school do not arrive as blank canvases.⁵ According to DeNora, particular activities can sometimes form an exclusive relation with a set piece of music or genre. Teachers may also use this as a form of entrainment with their children, where if at first a piece of music is introduced with a particular act or feeling, future encounters with this piece of music may help instil the same feelings and induce similar actions. This implies a potential to regulate and structure the day of children through music, an aspect that will be discussed in chapter three. It may be questioned whether these effects are present with older children, and whether it is possible to regulate older individuals' behaviour through music as well. In a study by Beentjes and van der Voort (1997), Dutch children were asked whether they believe the presence of background music aided their homework performance. 64% of the children preferred studying with music and of those most believed this improved their performance. However, in a different study, Pool and colleagues (2003), found that background music had no significant effect on homework performance. These contrasting conclusions suggest that, despite the lack of significant benefits to homework performance in this latter study, the children in the first study were psychologically motivated by music. Accordingly, their level of contentment and happiness was raised by the presence of music, and they believed their performance was improved. Many of the teachers I interviewed mentioned using music for their own work, such as during lesson planning and while writing reports. Though they did not refer to the results in their performance, the general consensus highlighted an improvement in emotion and the feeling of happiness while conducting the task.⁶

⁵ A great deal of research has been conducted on musical development, suggesting that the first acquaintances with music are introduced in utero (Hepper, Scott and Shahidullah, 1993), and therefore even new born babies have begun their musical journey (Trehub and Nakata, 2001).

⁶ As a professionally trained classical pianist myself, I often undertake in pre-concert rituals, as do many other performers. Though these acts are not usually based on belief that the act itself will aid the performance,

Overall, the above studies with older children and accounts of adults suggest that music's effects tend to be more directed towards feeling, rather than specific actions. By contrast it might be hypothesised that younger children are more easily manipulated by music than older children or adults, where music influences both performance and feelings. A general consensus among scholars regarding the impressionability of children regarding different forms of media (Buckingham, 2008), also highlights why music might prove to be a particularly powerful tool for orchestrating daily activities in a pre-school setting.

1.3 A Brilliant Stars Case Study: context and methods

“Our mental state fluctuates during the day between alert and drowsy, just as fluctuations occur during the night between light and deep sleep stages.” (Weissbluth, 2005: 27)

It is generally accepted that there are peaks and troughs in the energy levels, concentration and efficiency of both children and adults throughout the 24 hours of a day, as highlighted above. It is therefore in the best interests of pre-schools to be aware of these patterns and to harmonise their activities with them. Brilliant Stars International Kindergarten has established a system whereby music is used to lead children through their education. Therefore, I chose this kindergarten as my primary case study. Here, I conducted both my own studies on the children and interviewed the teachers on their observations.

Before beginning my research, there were a few factors that needed to be examined. Firstly, my primary case study – Brilliant Stars International Kindergarten, was founded and is currently run by my parents in Slovakia. I was therefore fortunate enough to be able to work in the kindergarten, and to have full access to the institution. However, in order to avoid biases, it is important I am aware of my connections with the kindergarten, and how this may influence my findings. When observing the kindergarten opposed to other educational institutions, Brilliant Stars, with its numerous music teacher training and the additional resources it has access to as a private institution, has allowed the teachers to be well equipped to use music when desired, in consideration with the curriculum. Additionally, as I am a classically trained pianist, much of the training offered to teachers and the music introduced

performers still undertake the rituals to improve their own state of emotion. Brooks et al., 2016 suggest that engaging in rituals reduces the feelings of anxiety, and therefore may have positive impacts on performance. This may in turn induce positive emotions and therefore improve the overall feeling towards the situation.

to the children has tended to privilege western classical music.⁷ While undertaking this research I have become more aware of these predilections and have made a conscious effort to take a more objective and reflexive approach.

In Brilliant Stars Kindergarten, music is employed to help direct the children through their constructed daily routine. The below table, which was created in collaboration with the kindergarten’s founders and several teachers, summarises the daily routine - taking into consideration age differences and facilities:

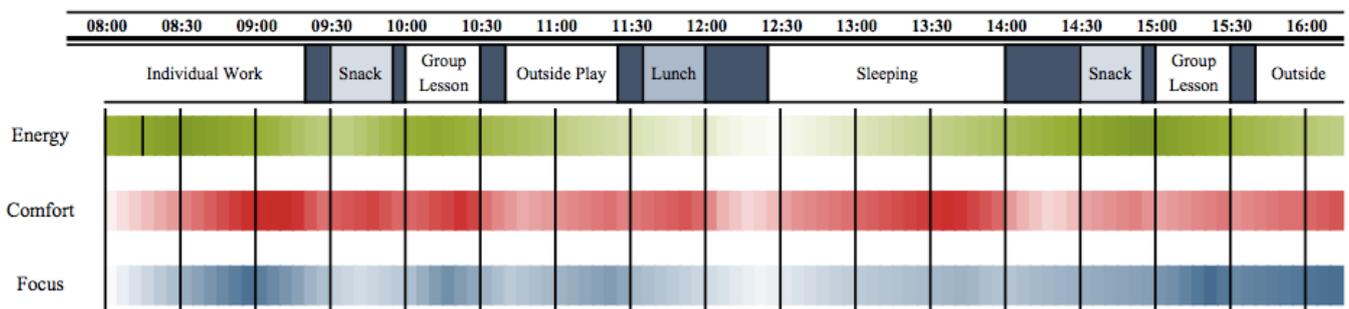


Figure 1 – ‘Cycle of the Day’ Nursery I & II (Source: Primary Research)

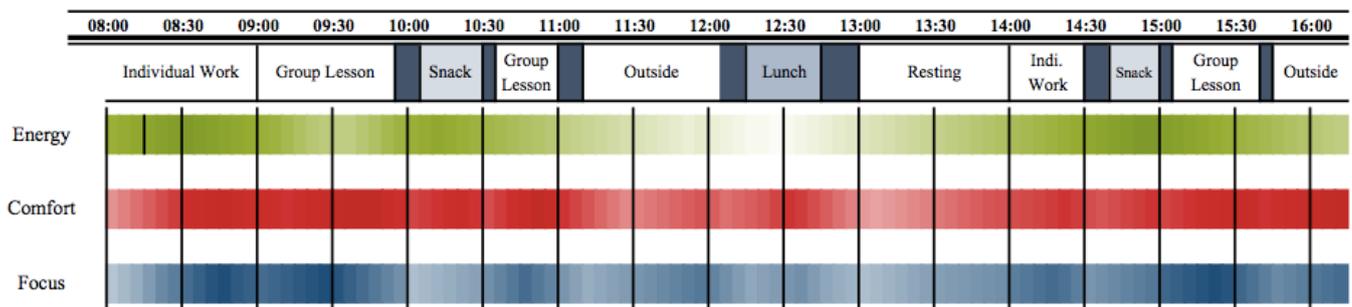


Figure 2 – ‘Cycle of the Day’ Reception (Source: Primary Research)

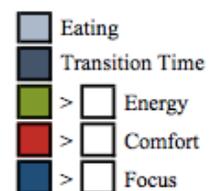


Figure 3 – ‘Cycle of the Day’ Explanatory Key

A primary difference in the tables above, is between the comfort and focus levels of the nursery and reception classes. Children in the Reception class appear to have higher

⁷ Although the music curriculum of the pre-school is comprised largely of a classical repertoire, after discussions with the teachers, the majority indicated feeling comfortable with the musical choice. Additionally, classical music was often part of the daily music listening in which the teachers took part.

capacities to concentrate and focus within the day, as well as for longer periods of time. This also explains the longer and more frequent work time scheduled into their day (Venus: 18/02/2018). The Nursery class, on the other hand indicate an overall lower feeling of comfort within the day. As will be investigated within this dissertation, this correlates strongly with the novel environment and peers of a pre-school.

Interviews: I conducted interviews in order to assess teacher attitudes, experiences and confidence regarding the use of music as a tool in the classroom. Building on prior examples of teacher interviews, I designed a questionnaire on which to base my interviews.⁸ This was followed up by an additional questionnaire later in the research. The majority of the teachers I interviewed were from Brilliant Stars Kindergarten, but I also interviewed teachers from other kindergartens in Slovakia and England; all were happy to be interviewed and acknowledged. Despite variation in musical training, all the teachers exhibited considerable interest in singing, playing instruments and listening to music. Reflecting my familiarity with the teachers, I will use their first names. (See appendices for a full list of participants).

Observation and Studies: At Brilliant Stars International Kindergarten I designed two studies within the daily schedule. For more information regarding the objectives, methods, and theoretical considerations, see appendices.⁹ The first study examined how respectively familiar or unfamiliar background music impacted on the behaviour of children arriving at the pre-school in the morning. I aimed to discover whether the change of familiar to unfamiliar background music would alter the children's reactions. My expectation (based on secondary research) was that a change to unfamiliar music would affect the children's behaviour, specifically impacting feelings of comfort, relaxation, concentration and connection. The aim of the second study was to investigate whether the presence of familiar music aids 2-5-year-old children relax, feel comfortable and calm at resting time in the pre-school. This was done through observation of a group of children resting whilst respectively in the presence or the absence of familiar music. Here, my expectation was that the presence of familiar music would aid the children to relax, feel comfortable, and therefore sleep better and faster, with less help from the teacher. By contrast, I hypothesised that removal of familiar music, to create silence, would impact on the behaviour of the children, increasing

⁸ This can be found in appendices 2.

⁹ Study 1 – Morning Arrival (appendices 4), Study 2 – Nap-time (appendices 5)

the amount of talking, movement, crying and requirement for teacher assistance. In both studies, I further informed my observations through discussions with class teachers, in order to assess the children's usual behaviour and to compare their observations with my own.

2. Emotional and Behavioural Development through Music

Research into the practical uses of music has suggested the presence of two opposing methods of utilizing music within the pre-school. For the purpose of this dissertation, these will be defined as ‘passive’ and ‘active’ participation with music. According to Holloway (1980), when music (both live or recorded) is listened to, as there is no direct involvement with the music, it is considered passive. Active participation will be attributed to direct engagement with music such as singing. Though neuroscience identifies alternative parts of the brain being engaged when participating in active or passive music, emotion has repeatedly been observed as possessing a central role in the affective value of music (Yinger and Gooding, 2014; Lin et al., 2011).

In my interviews, many teachers highlighted children’s emotional responses to music, noting how positive emotional feelings directly correlated with behaviour and with the creation of a more desirable learning environment. The following sections explore emotion, and some of the emotional and behavioural responses music that were most frequently identified.

The question whether emotions are innate or learned, has been long and fiercely debated in psychology.¹⁰ Inspired by Darwin’s theory that we evolve emotions over time, Ekman (1971) developed this idea further, testing western emotions, perceiving them to be universal, regardless of belief, religion, culture or race. It has been established that children as young as three months are able to discriminate between the different facial expressions (Barrera and Maurer, 1981), however, this is a skill that needs to be developed and evolved with age. Hoffner and Badzinski (1989), found that younger children rely on facial expressions to process emotion, whereas older children rely more on situational cues, inferring an increase in the reliance on social cues with age. Emotions are understood to be interconnected with temperament (Kagan, 1997) which is thought to be inborn. Temperament affects the way in which we approach new situations and changes to our routines, and is particularly evident in young children that have not yet learned to regulate their behaviour. Throughout the pre-school years, complex emotions such as embarrassment, pride and shame

¹⁰ Though the research is vast some key readings include: Castanho and Otta, 1999; Durand et al., 2007; Camras and Shutter, 2010; Oster, Hegley and Nagel, 1992; Herba and Phillips, 2004; Hoffner and Badzinski, 1989.

are developed (Tracy et al., 2005; Lewis et al., 1992; Bennett, 1989). These developments are coupled with a growing capacity to recognise the various and distinct human emotions, and the ways these influence social anxiety (Simonian et al., 2001). Recognition and differentiation between emotions are particularly relevant to music, where the potentially calming and comforting effects of music may aid in developing children's emotion recognition.

The definition of emotion itself, though yet to be definitively agreed upon (if at all possible), is believed to be identifiable through particular characteristics, such as cognitive appraisal, expression, subjective feeling, and regulation (Juslin, 2009: 131). In an attempt to identify the reason behind why music affects people so deeply,¹¹ Juslin evaluated methods used to investigate emotion, concluding that there is a distinction between musical emotions (such as happiness, love, excitement, and calm) and non-musical emotions (such as irritation, anxiety, fear, and boredom). This highlights both the potentialities and limitations of music, where multiple means of education are necessary to familiarize the child with the full spectrum of emotions. Additionally, Juslin identifies the usefulness of differentiating between the *induction* and *perception* of emotions. Specifically, identifying the twofold possibility of understanding emotion, where one may merely be perceiving the presence of an emotion, whereas the other may be the deeper target of truly feeling and engaging with it (Juslin, 2009: 131).

2.1 Comfort, Autonomy & Relaxation (Passive)

When children arrive at Brilliant Stars International Kindergarten in the morning, they are expected to choose from a range of activities and to work independently while the teachers move around among them and offer assistance. Teachers told me that in order to ensure mornings run as smoothly as possible, they employ resources, such as music, to help enhance comfort, concentration, autonomy and relaxation.

Comfort: music as a sonic stress ball for challenging mornings

A particularly common topic of discussion among interviewees, but also in the literature, is the power music to comfort and encourage relaxation. When children part ways with their

¹¹ Though musicologists such as Kivy (1990) have questioned whether music truly possesses the potential to evoke emotions, an upsurge of research conducted since, are providing evidence of the contrary. See: DeNora 2000; Gabrielsson 2001; Juslin and Laukka 2004; Waterman 1996.

parents in the mornings, many cry from feelings of loss or abandonment. Fredrickson (1998) and Isen (2001) found that the presence of happy music was a handy way to mobilize emotional energy invoking a perception of happiness. Similarly, relaxing and positive music has been found to reduce feelings of sadness (Knobloch and Zillmann, 2002). Regardless of teaching style (Montessori or otherwise), the teachers I interviewed supported the above claims. Music was put on in the background to convey a sense of comfort and familiarity to the children as they stepped into the classroom. According to one teacher: “in the morning when everyone is still highly attached to their parents, music is something that comforts them” (O, Jana: 26/11/2017). She went on to suggest that music creates a sense of comfortable familiarity. Secondary research supports this, as music has been found to elicit memories in conjunction with emotions (Gabrielsson 2001; Sloboda 1992). It can therefore be helpful for children arriving to the pre-school to recall pleasant previous memories of positive moments they had previously encountered in the learning environment. Many teachers have found consistency in the pre-school classroom to be vital to creating feelings of comfortable familiarity, and therefore safety, for their students. This familiar function of music can often serve as a soothing consistent element in the mornings, reminding the children that parting from parents for the day has its happy memories too. This is particularly useful for both the teachers and parents, as a great deal of time and emotional energy is spent consoling children who find it hard to part from their parents in the morning.

My study involving the contrast of familiar and unfamiliar music at Brilliant Stars Kindergarten, which I conducted with three contrasting age groups, highlighted the impact on the youngest children. When these 2-3-year-old children stepped into their classroom, even with the presence of familiar music, they seemed hesitant and there were occasional tears. However, when unfamiliar music – in the form of an Indian rag – was played when they arrived on the following day, the children’s behaviour suggested higher levels of anxiety and discomfort from the additional unexpected element. This took the form of children undertaking individual-type activities collectively, following the teacher around the classroom, and requesting their attention more frequently than usual. The reception class, on the other hand, even with the presence of unfamiliar music collectively seemed content and comfortable. There were a few cases of behavioural discomfort, but minimal differences from the norm noted. Indeed, the occasional tap of an arm and leg by a child suggested appreciation of this contrast in music. While the observed behaviour might be attributed to a range of factors, and additional experimentation and analysis is necessary, my preliminary

results suggest that the youngest children both felt the most insecure and fragile in the presence of unfamiliar music, and the most supported when the music played was familiar.

Likewise, Knight and Rickard (2001) analysed the effects of relaxing music on heart rates and blood pressure, concluding that following a stressful task relaxing music has the potential to reduce feelings of subjective anxiety. Thus, relaxing music might beneficially be used in public spaces such as hospitals, office waiting rooms and schools, in the context of stressful situations – such as medical appointments, interviews or exams. Morning goodbyes to parents in the pre-school might similarly be identified as a stressful situation for young children, where relaxing background music can help reduce a child's heart rate, blood pressure, and feelings of anxiety. However, North and Hargreaves (2000) have related stress reduction from relaxing music to musical preference, which raise that possibility that certain music may be relaxing to some children but not to others (Knight and Rickard 2001).

Autonomy: music as a sensational crutch for unaccompanied and immersed learning

Another frequent application of background music in the classroom, especially at Brilliant Stars, is while children are working. Indeed, certain interviewees identified music as substitute for the child's need for constant contact with their teacher.

“When music is on, the children tend to feel more relaxed and don't need me as much. They feel comfortable to get on with learning.” (Kristina: 23/11/2017). This offers an interesting insight, as in a full classroom, when the children are capable of working on their own, the teacher has the time to work on the children's learning, and less time is spent by the children worrying about potential safety; accordingly, more is spent learning and expanding educational experiences. Erikson (1963) suggests that autonomy is one of the main skills that should be tackled in early childhood (aged 2-6). This is especially in the first years of pre-school, before which children have been used to a cocooned environment. The presence of music in this situation would appear to act as a supporting crutch, supplying children with a sentiment of comfort in order to advance their autonomy and pursue working individually.

Both focus and joy are thought to be experienced by children in the presence of background music. As one teacher put it: “they are more focused on their activities and I can see it brings them joy and they are more motivated to do what they are doing” (Sharon: 25/02/2018). Another observed how, during morning activity time when background music is on, the children concentrate better and are not too distracted by each other: “everybody sits

quietly and does their activity, and if they have something to say it is shared but within a peaceful environment” (Monireh: 26/11/2017). Although unsure whether this effect was merely placebo or based on the impact of the music itself, teachers shared the belief that children achieved a greater sense of focus in the presence of appropriate music. Similarly, teachers identified the positive effects of music on their own emotions and therefore behaviour, thereby benefiting the quality of their teaching alongside enhancing the children’s learning.

Despite being identified above as a means to enhance both comfort and concentration, not all the teachers I spoke with used music in this way. For example, an experienced (Montessori style) teacher, who frequently used music during the school day, specifically avoided using music when the children were trying to concentrate on learning (S, Lucia: 26/11/2017). According to Montessori training, she explained, the development and learning of each child involves distinct sensitive periods and the presence of background music could disturb its development during a musically sensitive phase.¹² It is also notable that Lucia is in favour of silence, rather than background music, when she works herself. By contrast, Danka (25/11/2017), the owner and teacher of a Montessori pre-school, told me of her own love for music and about how she uses background music while children in her pre-school are working individually. These examples suggest a strong relationship between teacher’s preferences and personal uses of music, and their attitudes to using music in the classroom; a theme which deserves further investigation.

Relaxation: music as an auditory tranquilizer

Many teachers in my interviews described using music to help children sleep at defined rest times during the day. Although unable to explain the psychological mechanisms involved, they had observed how music enhanced children’s capacity to go to sleep independently.¹³ Additionally, in the study in which I contrasted periods of music and silence during children’s nap-time, I found that music’s presence helped create a soothing and tranquil environment in which children were more easily able to fall asleep. By contrast, when the

¹² Maria Montessori discusses the presence of sensitive periods to specific activities through a child’s development, and the importance of understanding and acknowledging these sensitive periods when educating children in her book *The Absorbent Mind* (1949).

¹³ In an investigative study, Graham, Robinson and Mulhall (2009) analyse the effects music listening has on emotional processing, concluding that music is capable of relaxing attention mechanisms, especially when a threat is detected. It indicates the performance in cognitive tasks are improved while conducting a task-irrelevant mental activity, such as listening to music.

music was turned down, children would often sit up in their beds, fiddle with their blankets, open their eyes and look around, and often express the two most dreaded statements for any parents or teachers ‘I’m thirsty’ and ‘I need to pee.’ There may be multiple reasons for these responses, the first being the emotional response directly caused by the music. However, as the children in question are played music every day when going to sleep at the pre-school, entrainment may be an aspect worth investigating; a theme examined in more detail in chapter three. Juslin argues that despite the commonplace of emotional responses within musical contexts, “the occurrence of music does not itself necessarily guarantee that a listener will be moved by the music” (2009: 139). In any case, children at the preschool (especially on the younger side) feel threatened as they are in a new environment and facing new surroundings that are unfamiliar to them, therefore any tools the teacher is capable to ensure the relaxation and comfort of the child is of utmost importance.

2.2 Expression, Connection and Confidence (Active)

In a more active approach towards music, participation in activities have been observed to reinforce learning as well as elicit behavioural developments, such as building confidence, developing connections with peers and teachers, and advancing both self-expression and emotion-expression.

Confidence, Self-expression and Emotion-expression:

Many teachers told me how active participation in music helps children to develop their self-confidence, to express their thoughts, and to cultivate a sense of identity through self-expression. Activities such as group drumming, enable children to develop their movement, body awareness, fine motor skills as well as their rhythmic understanding. Through the handling of musical instruments, the children were claimed to gain a new confidence and enthusiasm for self-expression through music (Lauren: 29/03/2018). One teacher noted how children associated their actions with specific pieces of music, thus establishing music as means to reinforce their learning (Sharon: 25/02/2018).

Music was identified by the teachers as accessible for children, as – even before children are able to speak clearly – they communicate through the production of sounds. “As soon as children hear a rhythm, they all start moving around. Though they may be unaware of their actions, they are definitely moved by the music” (William: 07/03/2018). In my study on

unfamiliar music, I also identified this phenomenon first hand when children moved hands and legs in time with the music, even though just in the background. Communication, in particular, is a skill that has been discovered to be developed through active participation in musical activities. Aspects of performance, such as eye contact and body gestures, all of which are primal forms of emotional expressions in humans, also form the foundation of communication among musicians during a performance (Bastien and Hostager, 1988; Poggi, 2002; Williamon and Davidson, 2002). Likewise, confidence may be developed through musical performing activities with the children, such as using a ‘singing chair’¹⁴ and having children take turns singing alone using the chair as a platform through which they are able to step out of their own shoes and be given a stronger sense of confidence.

End of term pre-school performances, are often recognised by teachers as a time-consuming practice, essentially benefiting the parents and the representation of the institution. By contrast, Sawyer (2006), identified that performing as a group offers a platform for the most intense emotional experiences. Additionally, research by Bailey and Davidson (2005), suggests that there are in fact emotional benefits of performing for an audience, and that these exceed that of the common music creation. As this research was conducted across a range of socioeconomic backgrounds, this suggests that the emotional benefits of performance are not dependent on schooling, culture or background. Therefore, the novel experiences of performance, for pre-school children, surrounded by family and friends can be a friendly welcoming situation for children to build self-confidence and expose children to new emotions they may not have been able to experience otherwise.

Young children are often only beginning to develop their power of expression, and in the early years of pre-school are battling with multiple barriers such as limited language and unfamiliarity with people and surroundings. For such young children, music may represent a comforting and accessible means of expression and communication. “The arts often gives children a way to express the deeper things, which their present sophistication of language may not” (Francesca: 29/03/2018). The presence of a medium through which they are able to

¹⁴ Though the origin of this phenomenon seems unclear, many teachers I interviewed identified the use of a special platform, such as in this case a singing chair, where children are able to step out of their own skin and are empowered with a new sense of confidence. Alternative practices in the same field are activities I was introduced to (though self-created by teachers), such as giving children colourful gloves and explore movement to music outside their own skin.

open up, socially interact with their peers, and express themselves, particularly one that does not require verbal communication may therefore be an appreciated tool by children.¹⁵

A key development in children over the preschool age is the capacity to identify and ascribe mental states, feelings and intentions, both to others and to oneself – what psychologists term Theory of Mind (ToM) (Premack and Woodruff, 1978). The arts – especially acting training – have been identified as important means for developing both empathy and ToM (Goldstein and Winner 2012). In a questionnaire I send out to a range of pre-school teachers both from the UK and Slovakia, teachers unanimously endorsed the belief that empathy and emotion expression may be cultivated through music. One teacher clearly stated:

Children can hear a difference in types of music, and if they are taught from an early age that music can reflect an artist's mind-set or mood – they may have more self-awareness of emotion and in turn develop empathy. (Nava: 07/03/2018)

In an evaluation of empathy, Lieberman (2007) identified two key traits. The ability to identify emotions and be aware of their presence, and the capability to respond in appropriate fashion. In a study on 8-11 year olds conducted by Rabinowitch, Cross and Burnard (2012), they found that music experienced within group interaction reinforces the advancement of empathy. Both the primary and secondary research above highlight the constructive use of music in advancing both verbal and emotional expression in children, alongside developing their understanding of emotions in general. According to Greasley and Lamont (2006), increased engagement by listeners heightens awareness of the music's emotional functions. This implies that although music's emotional may always be available, to be tapped like a kind of 'wellspring', time must be invested into learning about the music to avail oneself of this emotional potential.

Reinforcing learning and connection

As indicated in chapter one, learning and practical development may be reinforced through the presence of music. Many teachers mentioned how educational objectives could be

¹⁵ According to Vygotsky's Sociocultural Theory (1986), the social world mediates individual cognitive development, and therefore social interactions are found to be particularly relevant to development. The theory identifies how children learn to function intellectually and acquire independence through the support of more experienced individuals. Cultural variations must also be taken into account in development, as the ways by which adults support children are dictated by social and cultural norms, values and practices. Vygotsky's theory became relevant to pedagogy, as it offered learnings for teachers in particular, that children can better develop their understanding of the world, if studied, with someone at a different stage in their development.

reinforced through the activity of singing. These forms of learning-directed musical participation ranged from moral education to every day actions such as brushing teeth and cleaning up. One teacher stated: “there are things we learn through songs, such as how to act with one another” (Monireh: 26/11/2017), observing that the lyrics of the song, as well as the actions associated with it, were valuable for reinforcing learning activities. Equally, a song on a subject under discussion, often with gestural support, reiterated what the children were supposed to be learning and helped the children grasp concepts more easily (Kristina: 23/11/2017). Furthermore, the use of music for the reinforcement of learning was suggested by Lauren to “invigorate any topic, particularly ones that may be not so easily retained” (2903/2008). For older children, with more developed communication skills, music may also serve as a verbal reminder of what they are supposed to be doing or learning in a pleasant melodic form. According to some teachers, this musical reinforcement of learning took the form of playing contrasting forms of music to motivate the creation of other arts, such as stories, drama and fine art (S, Lucia: 26/11/2017). It is notable that, although the whole class would listen to the same piece of music, the stories it motivated varied considerably, demonstrating how music can affect individual listeners in quite distinct ways. This focus on individual reception highlights two key points that I will examine in the next chapter: (a) musical choice, and (b) the appropriateness of music to particular situations.

Most of the teachers I interviewed were in favour using musical participation, such as group singing, and offered multiple reasons to explain its effectiveness. These included, the potential of singing to grasp children’s attention, to enable unanimous participation, and to facilitate emotional and personal contact. Many expressed preference for singing, over playing recorded music, when connecting with children, but it was also recognised that the teacher needs confidence and competence to sing in front of the children, and to be in the right state of mind to sing well (Danka: 25/11/2017). Such musical interaction was seen to reinforce social bonds with other group members (see also Woody and McPherson, 2010: 405). In the words of one teacher:

I think it helps me to be also in an attitude where somehow, I am able to relate to all of them. Sometimes when using only words to communicate I feel I do not always connect with all of the children, however when I sing, I am able to keep their attention – the connection is stronger. (Monireh: 26/11/2017)

Teachers also related this increased communication, attraction, and attentiveness during group singing to elements such as prolonged eye contact, unanimous participation, a lack of

tears, a decreased inclination to wander off and ‘mess around’, and a feeling of ease between teachers and children. Likewise, the act of engaging in ensemble music making has been found to bring people together through a sense of fellowship (Huron, 2001). A teacher explained this phenomena:

They may not always know the words, or even the type of music that is played but whether through singing, dancing, or listening they can engage in more ways with their learning and classmates. (Nava; 07/03/2018)

Moreover, active participation in music has been identified to both connect children with their peers and their teachers. Though it can be argued the majority of children are unaware of their behavioural differences to music, primary and secondary research points to them being affected nonetheless.

3. Orchestrating the Day

All music creates an order of virtual time, in which its sonorous forms move in relation to each other—always and only to each other, for nothing else exists there...Music makes time audible, and its form and continuity sensible. (Langer, 1953: 109)

Music's temporal aspect makes it a particularly potent tool for constructing and guiding us through distinct forms of virtual reality. Therefore, though limited by time, music has the capability of guiding children through activities and respectively is a valuable strategy to manage a pre-school day. Through sonic means, the environment may be altered and harmonized with the cycle of a child's day rather than trying to fit the child into the narrative. This auditory reality through which the child is lead, often subconsciously, is malleable and therefore can be moulded into the precise form necessary on the spot. Additionally, as the human body is capable of producing many forms of music, it is also a tool that is able to be moved wherever the body goes. This poses particular advantages in not only classroom activities but also transitions. In this chapter I examine how various elements of music may be utilized to orchestrate the pre-school day.

3.1 Appropriateness and Musical choice:

When children are resting, they are particularly vulnerable and teachers identify the youngest of the children to feel the most stressed and long for their parents. Therefore, it is beneficial to create an environment that may calm and comfort the children as much as possible. One aspect that is possible to be controlled is the choice of music being used. The teachers interviewed each had their own music they believed to be the most beneficial for this effect. This ranged from the sounds of nature to familiar classical music they often called "constant and with little shocking moments" (Caitlin, 27/11/2017). I have therefore chosen to investigate musical choice, specifically in terms of familiarity, preference, and particular musical elements, to discover why certain music is identified to be more appropriate than others.

Abraham Manslow (1968) coined the term *peak experiences*, and identified one of the easiest ways to experience the phenomenon, is through music. Peak experiences are recognised by elements such as time and space disorientation, loss of fear, control and anxiety and complete absorption, and are believed both music and dance to be capable of

aiding individuals in identifying the self. Although these experiences were identified to be felt exclusively in the presence of classical music, this may be due to a bias towards classical music as indicated in his method of research. Further research supports this, as in an alternative study, Scherer, Zentner and Schacht (2001) found stronger emotional states to have been reached when listening to non-classical music than classical music, and overall a more diversified distribution between styles. Each of these studies catered to particular audiences, with this in mind, one might argue that though Manslow's studies showed classical music on average to be the biggest cause of peak experiences, it is merely due to the familiarity with these 'great classics' that causes the experience to be so intense. In further research done by Woody and McPherson (2010), on emotion and motivation, it was concluded that from the outlook of a motivated observer, both the active and passive participation in musical experiences may induce peak emotional experiences. Sloboda (1990) discovered such experiences with music to act as a 'hook' to further motivate children, in their interest in music, thus indicating the importance of such experiences.¹⁶ Additionally, many of the teachers I interviewed, mentioned certain music to be better for situations than others, as some pieces have too much 'going on'. Research has identified this observation in Meyer's Theory of *musical expectancy* (Meyer, 1956), where the unexpected variation of an expected musical feature may induce emotions in the listener. Similarly, Sonnemans and Frijda (1995) suggest emotional responses to be strongest when events are unexpected and surprising. This may have close associations with familiarity, where one's expectations are "based on the listener's previous experiences of the same style of music" (Meyer, 1956: 136).

Teachers highlight the importance of the music being in harmony with the activity or situation at hand. Karageorghis et al. (2011), find appropriateness to be highly affected by choice and preference. Danka, an experienced teacher I interviewed, expressed her feelings on the importance of choice, where she stated that "when you chose the right kind of music, it can be very calming" (25/11/2017). Konečni (1982) discovered that musical preference was often shaped by emotional and social considerations alongside reference to the listening situation. According to Sloboda, Lamont and Greasley (2009), appropriateness is a feature that must be taken into consideration, especially when accompanying physical activity. North and Hargreaves (1996), identified the benefit on appreciation of the correct choice of

¹⁶ As this study establishes this effect on children aged seven, it fails to account for the pre-school age group, therefore, further research is recommended.

appropriate music may have, and found that this may have long term implications on the future choices made autonomously by individuals. The use of high arousal versus low arousal music was investigated by North and Hargreaves (2000), discovering low arousal music to correspond with relaxing activities, and high arousal to be preferred during exercise, indicating preference to be highly context dependent. This correlates with that of my own research, as although teachers mention using calming music when they aim to relax the children, and upbeat music while dancing or playing games, this is contingent on the purpose of the music being used. For instance, if the aim is to energise the children, high arousal music is desired however if the children are adequately stimulated during the activity, one may choose not to include high arousal music so as not to excessively enliven the children.

A discussion among both researchers and interviewees, is the significance of pace in the examination of high and low arousal music. Caitlin identified the presence of a fast beat to make children “very energised and excited” (27/11/2017). Researchers have deliberated positive feelings to be evoked by music of a major key and livelier tempo (Hunter, Schellenberg and Schummack, 2010; Knobloch and Zillmann, 2002). Furthermore, Belcher and DeNora (1999), used ethnographic methods to investigate musical use during exercise activities. It was established that the speed of music, specifically the beats per minute of a piece of music had a strong correlation with the exercise activity and therefore performance. By contrast, “children often walk a little slower and work a little quieter” in the presence of slow paced music (Natasha: 28/03/2017). This suggests that pace plays an integral role in the differentiation of high and low arousal music, and hence the response to a piece of music.

As touched upon in chapter two, the appropriateness of the human voice opposed to pre-recorded music, was a common theme among teachers, where they found the level of connection and participation to both be raised when using their own voices rather than other pre-recorded music. Though little research has been done on the matter, researchers such as Gabrielsson and Lindstrom-Wik (2003), suggest the distinct environments created in each of these situations, to have greater effect than the actual music being played or sung. From this we can infer that the choice of utilising recorded or live music is situation-specific. Correspondingly, Sloboda (1990) found the content of a piece of music to be second to that of the experience in which it was observed, again indicting importance of appropriateness and choice.

3.2 Routine and Familiarity

Children attending Brilliant Stars International Kindergarten, are expected to partake in daily activities on their own. These tasks range from changing clothes, putting on shoes, brushing teeth, to making beds and eating food. Although, this process is advanced throughout the pre-school years, many of the children are initially reluctant and unaccustomed to performing such tasks on their own. As a result, teachers often use songs as a method of encouragement, and motivation in support of orchestrating the children through the activities of the day.

The process of the act of a ritual or routine may be created through the recurring presence of controlled music, and may have unforeseeable effects on behaviour, emotion and learning. By establishing the energy and behavioural cycle of the subjects in question, teachers are able to reinforce desired behaviours, and alter problematic ones (Zellmer-Bruhn, Waller and Ancona, 2004). Teachers actualize this, through the use of music both in the classroom and during transitions.

When music is on they sit down and do what they need to do, so I definitely notice a difference.

Sometimes when I forget to put on music at a time when they are usually used to it I also notice a difference. (B, Jana; 23/11/2017).

Though this statement reinforces the affective value of music, it sparks the question of familiarity and routine. Specifically, if it is the presence of music that affects the behaviour of children or whether this may be due to a less musical and more psychological cause of entrainment and conditioning. Teachers have highlighted using particular phrases such as ‘clean up’, and ‘listen please’, and sounds such as a chime on a bell or a clap, to induce particular behaviours and actions. Despite this, they find such requests are more effective through the use of music, suggesting its particular distinctiveness in these situations. It may be argued that if in fact it was merely due to the entrainment of children, other mediums would be just as compelling. It might be questioned, whether it matters if it is music or the act of ritual that is causing these effects as long as they are present and possible to be controlled. Equally, whether it is as all possible to divide the binary and find one root cause. As alternative methods are utilized by teachers in the construction of a routine, the uniqueness of music to the entrainment of children is unconvincing. Nevertheless, primary and secondary research suggests that although music is merely one platform possible to be used to orchestrate a routine and therefore organize the day of the children, it is seemingly a worthy candidate with marked benefits, particularly in the pre-school.

Transition times are moments in the day where regardless of pre-school type or setting, music is often either being played or sung, particularly at Brilliant Stars. Larger transitions may take the form of movement between the classroom, canteen and playground, however, the disruption of an activity and the motion/manoeuvre to the next, even within a classroom, may also be considered a transition. Transition times have often been identified by teachers as “highly stressful” (Kristina, 23/11/2017), and any activities or processes that can be implemented to comfort and make these transitions easier and faster are welcomed by teachers. Research suggests, as concluded by Sloboda, Lamont and Greasley, “individuals chose music in conjunction with concurrent tasks and activities to help them achieve goals” (2009: 433).¹⁷ Specific scenarios in the classroom, are the use of music such as clean up songs, teeth brushing songs, and usually the use of any music the children know to help them move through the routine of the day. Primary research suggests three predominant advantages observed for the appropriateness of music during transition times: (a) positive associations in relation to undesirable and mundane activities, (b) building a sense of safety through the creation of structure and boundaries,¹⁸ and (c) curating energy of the transition.¹⁹ A more intense example of a transition discussed with teachers, was field trips. Although, the general consensus was in favour of using music in these situations, many teachers expressed not using music due to shortage of time. Among the teachers that did use music, it was predominantly to the effect of creating a group mentality (decreasing the chances of children wandering off), offering guidance on actions, and maintaining a sense of comfort in order for the transitions to run more smoothly. The question arises whether, in these situations, aesthetic enjoyment of the music remains relevant, or whether the context and entrainment of these situations simply confer a given meaning or induce an action.

The capacity to be able to regulate the mood of children, is one that would allow teachers to more easily maintain children’s routine of the day, and leave more space for the teachers to engage in educating rather than herding/guiding the children between spaces and activities. In practice, teaching children music, including about the history of the composers

¹⁷ See also DeNora, 2000; North and Hargreaves, 1999; Sloboda 1992.

¹⁸ Action songs, and music intended for transition times, often signal the beginning and end of activities, as well as intended actions. Thus, boundaries are created for the children through the presence of routines and rules, conferring a sense of safety and calm in children. See: Perry, 2000; Bater, 2017.

¹⁹ The curation of energy has been examined by Sloboda, Lamont and Greasley, where the presence of repeated music has enabled two relevant consequences: “*Distraction* is a way of engaging unallocated attention and reducing boredom. *Energizing* is a means of maintaining arousal and task attention” (2009: 433).

and their compositions, and discussing how music makes us feel,²⁰ one can create a foundation upon which children can further their understanding of music in the future. An alternative approach of this is through composition. Research by Barrett (2006) discovers the potency of invented songs in young children to self-regulate through the reflection of their interests and emotional feelings. By spontaneous singing about their environments and occurrences within it, children are able to process and better understand their experiences. This suggests that music can be used as a handy tool with which to equip children in order to help them regulate their own moods, both when experiencing positive or negative emotions. Although music may not be the only means for regulating mood, its effects on emotion alongside its temporal aspect makes it a valuable tool for achieving this.

Moreover, Context has been identified to play a key role when discussing environment, as the interdependence of internal and external elements combined, such as events, experiences, atmospheres and actions, have been established to contribute to creating the environments we experience.²¹ Children of pre-school age have limited experiences and memories with an environment of this type. Therefore, any relaxing or comforting elements a teacher can introduce will be helpful to the children in terms of creating a positive association with the pre-school, and allowing them to feel content when attending. As the children are older, and accustomed to the pre-school environment, their susceptibility to minor alterations in the environment, such as the presence of unfamiliar music, appears to decrease. When creating a positive environment conducive to learning, familiarity only appears to be significant in the youngest and most fragile children, however, when the purpose is to orchestrate a routine, familiarity seems to play a crucial role, further implying that other elements such as context, appropriateness and entrainment are significant in orchestrating the day.²² Furthermore, Sloboda, Lamont and Greasley (2009) identify low intensity emotions, involved in everyday life to have a greater potential effect on a person than one off

²⁰ An interesting observation of a curriculum working towards this concept is Apollo Music Projects based in London, where I observed primary school children analysing music and its emotion effects with the help of trained professional musicians. Here they were able to discuss the effects of various music and advance their capacity in using music regulate their moods. (ApolloMusicProjects, 2004)

²¹ The interrelatedness of human beings and the environments we reside in, each affected by the other is widely accepted among ecological psychologists today. See: Dewey, 1896.

²² According to Krugman (1943), a piece of music may initially have little affective value on the listener, but when repeated over time this increases, and instils a sense of comfort. Similarly, teachers told me that with familiarity children's appreciation of a piece of music increases. Yet, there is also a breaking point, where aesthetic enjoyment begins to decrease. In the case of pre-school children, this is when teachers introduce new music.

unexpected higher intensity emotions, suggesting vast long-term cumulative effects. This indicates a significant impact music may have, when implemented into the daily routine, as the slightest emotional impacts of the music over long spans of time can possibly make significant improvements to the life and feelings of the children in the classroom.

Far from requiring reverent attention, much music experience could be described as background – like the soundtrack of a film, never defining of the focus of the attention, yet psychologically powerful nonetheless. (Sloboda, Lamont and Greasley, 2009: 438)

This statement highlights how it is not necessary for music to be the central point of attention in order for it to be compelling or to impact on our behaviour.²³

²³ Background music in particular, has repeatedly been used within retail environments to various effects. Customer behaviour, behaviour duration and affective response are all features of academic enquiry (Turley and Milliman, 2000; Garlin and Owen, 2006).

Conclusion

This dissertation has examined the role of music within the pre-school setting and investigated the possible means through which music may be used to induce behavioural responses in children and thus orchestrate the day. The psychological use of music to mediate emotions and environments have existed for centuries. The present research contributes to the existing body of knowledge by exploring the reality of pre-school teachers, and offering a more practical outlook into the possible methods music may be implemented within the environment.

The knowledge in dissertation was obtained through extensive interviews with pre-school teachers, two self-conducted studies observing children, and secondary research. The in-depth interviews provided me with insights into the current applications of music within the pre-school, the limitations the teachers faced, and their observations of the effects of music on the children. The key themes highlighted by teachers, such as the use of music in inducing a sense of comfort and relaxation, supporting autonomy, developing expression, connecting with the children and imbuing confidence, acted as a basis upon which the secondary research and my own studies were conducted. The secondary research, based on the aforementioned key themes observed by teachers, allowed for a more comprehensive understanding of the emotional and behavioural responses to music. An investigation into the developments of children aged 2-6, such as self-awareness, pro-social behaviour, and cognitive development, alongside distinct musical attributes such as the lack of gender preference, capacity to evoke emotions, accessibility, and temporal nature of music, suggested the particular effectiveness of music within the pre-school. Additionally, research into the reality of pre-school environments in company with an analysis into emotion and environment, revealed possible applications of music in this context. My studies on familiar music during nap-time and the presence of familiar as opposed to unfamiliar music in the mornings, was undertaken to acquire first hand observations and insights on the findings of the teachers and researchers and to compare them.

This research has shown the potential of music to elicit emotional and behavioural responses, particularly due to its temporal and all-inclusive nature. Furthermore, both passive and active participation in music have each shown to carry particular advantages, and thus

indicate that the uses of music must be tailored to the situations in question. Active participation, supporting self-expression, emotion expression and confidence in children, particularly as even before fully developing verbal skills, music is an avenue through which children are able to express themselves. The reinforcement of learning and developing connections between peers and teachers were also identified to be advanced through active participation of music. Research into the passive participation of music, discovered familiarity to play a crucial role in reducing feelings of anxiety and inducing a sense of comfort and relaxation in the children, resulting in easier morning arrivals, transitions and nap-times. Furthermore, as research suggests the establishment of autonomy to be one of the key developments of the pre-school age, the current findings support the presence of background music in empowering children with the necessary support to partake on activities on their own. The affective power of music in both passive and active participation in music also indicated that for music to be compelling and have impact on our behaviour, it does not need to be the central point of attention.

This study has shown that in order to create appropriate environments and supply the sonic environment with the necessary stimulants, it is essential to utilize the appropriate music. The findings suggest that in general, appropriateness of music tends to be dependent on preference, familiarity, pace, context, and above all the purpose of the use of music within these situations. One of the most significant findings to emerge from this dissertation, is the potential to apply the emotional and behavioural responses of music into the construction and orchestration of a routine. Specifically, in guiding children through activities and in transitions. The results of this project show that when aiming to orchestrate a routine, through music, teachers are better able to curate energy levels, support a group mentality, and establish boundaries through which they are able to both give directions, and encourage a sense of safety of the children. Whilst this study did not confirm the precise root cause of the particular benefits of music in constructing a routine and inducing actions, it did partially substantiate the presence of the advantages. Thus, offering possible explanations, and insights for future research on the extent to which music and entrainment play on its affective value in orchestrating the day.

The current findings add substantially to our understanding of the function of the music as a tool that teachers are able to make use of within the pre-school. These results may not be applicable to all pre-schools, as application was often based on the context of the

setting in question, such as the training of teachers, preference, and the availability of space and materials. However, this may inform possible future research of the means through which music may be adapted to various contexts. Furthermore, as this project has indicated that the same piece of music may affect each person differently, research into a means through which children are taught the necessary skills in order to be able to induce the affective emotional and behavioural effects of music on their own to regulate their own behaviour and feelings, is an issue that was only briefly examined in this dissertation. It is suggested that the application of these factors is investigated in future studies. The current findings add substantially to our understanding of practical implications of music in the field of education, particularly within the pre-school.

Figures

Figure 1 – ‘Cycle of the Day’ Nursery I & II (Source: Primary Research)

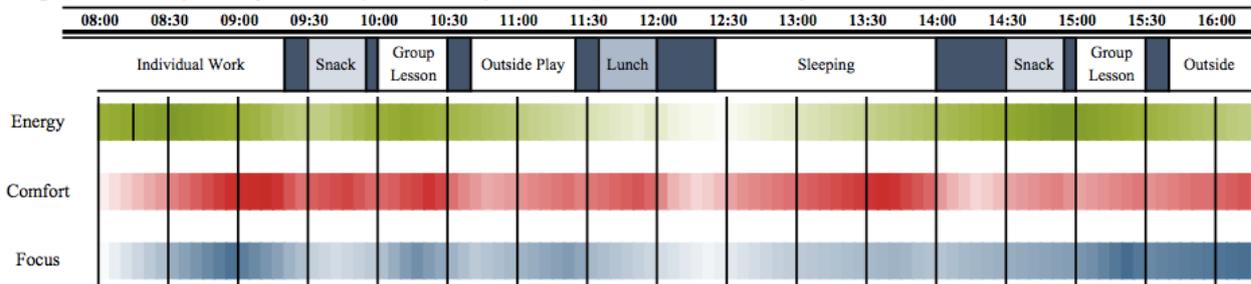


Figure 2 – ‘Cycle of the Day’ Reception (Source: Primary Research)

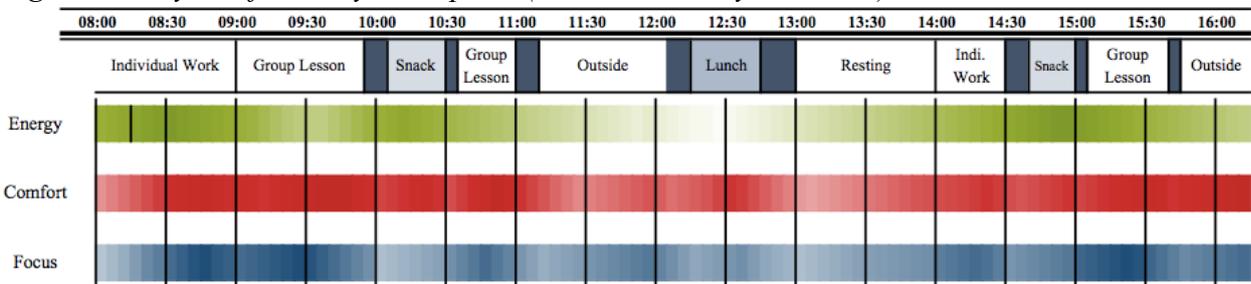
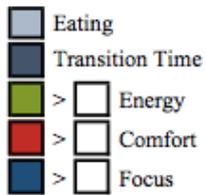


Figure 3 – ‘Cycle of the Day’ Explanatory Key



Appendices

Appendices 1: Research Interviews & Questionnaires with Pre-school Teachers

(November 2017- March 2018)		
Teachers from Brilliant Stars International Kindergarten, Slovakia		
1.	Kristina Horvath	23/11/2017
2.	Jana Bichler	23/11/2017
3.	Monireh Brigolin	26/11/2017
4.	Jana Ondrejková	26/11/2017
5.	Caitlin Ailis	27/11/2017
6.	Venus Agahi	18/02/2018
7.	Nava Rankin	07/03/2018
8.	William Rankin	07/03/2018
9.	Lucia Tušova	29/03/2018
10.	Ján Riapoš	30/03/2018
Select experienced Pre-school owners and teachers from Slovakia		
11.	Danka Janurová	25/11/2017
12.	Lucia Smičková	26/11/2017
A Range of pre-school teachers from the UK as a comparative		
13.	Margaret Mackie	29/11/2017
14.	Sharon Marnell	25/02/2018
15.	Munirih Grace	23/03/2018
16.	Faith Howes	28/03/2018
17.	Natasha Zacher	28/03/2018
18.	Lauren Barnes	29/03/2018
19.	Francesca Reid	29/03/2018
20.	Anna Izquierdo	30/03/2018

Appendices 2: Sample Interview Questions

Extensive Interviews (Duration: 15 - 45min)

Personal History:

- a) What age group(s) have you taught? What is your experience in education?
- b) Do you play an instrument or sing? Have you had any training for this?
- c) What are your musical interests?
- d) Where do you listen to music? Is it more active or passive listening?

Using Music with Children:

- a) How often do you play music for children? (Daily/weekly)
- b) How do you use music at the pre-school (if at all)?
- c) What kind of music do you choose? What do you base your choice on?
 - o Is this choice affected by the institution you work for?

Impact on Children:

- a) What effect of you think the music has on the children (if any)?
- b) Do you use music with the following? How?
 - i. Musical activities and games
 - ii. Classroom while working
 - iii. Transition times
 - iv. Reinforcing topics
 - v. While resting/sleeping

Extra:

- a) Why did you start using music?
- b) Does using music in the classroom help you in any way (as a teacher)?

Appendices 3: Sample Additional Questionnaire Questions

Questionnaire (Duration: 5 - 10min)

1. Do you think Empathy and Emotion Expression can be taught through music? (Please Explain)
2. Do you have experience developing children's confidence through the use of music and musical activities? (Please Explain)
3. Do you use music for resting/nap time? Do you find this helpful? (Please Explain)
4. Do you use music in transition times? (Please Explain)
5. Do you use music when leaving the pre-school for activities such as trips? Why? Do you find this to help the children in any way?
6. What is the most useful aspect of music as a tool for you as a teacher?

Appendices 4: Morning Study Write-up

Aims:

- This study aims to observe the emotional reactions of children aged 2-5 when in the presence of familiar and unfamiliar music.
- To observe children in context of (active and) passive music listening.

Background Information:

- Krugman, H. (1943). Affective response to music as function of familiarity.
 - Familiarity: more familiar = higher appreciation and sense of comfort
 - Repetition: Affective value raised over time
- Graham, R., Robinson, J. and Mulhall, P. (2009). Effects of concurrent music listening on emotional processing.
 - Relaxes attention mechanisms (especially when threat detected)
 - Improves cognitive task performance (with task-irrelevant mental activity)
- Self-conducted Interviews with teachers

Purpose Statement: The purpose of this experiment is to discover the effects unfamiliar background music can have on the behaviour of children as they arrive, and begin working at kindergarten in the morning.

Purpose Question: Does the change of familiar to unfamiliar background music change the reactions of the children in the classroom?

Hypothesis:

My expectations (based on secondary), is that the change to unfamiliar music will affect the children's behaviour. Specifically, feelings of comfort, relaxation, concentration and connection.

Materials:

- Familiar Music: Paganini Violin Concerto No. 1
 - As part of the Brilliant Stars curriculum, western classical music is daily present, therefore the chosen piece of music has familiar instruments and is a familiar genre and time period. However, in an aim to control affective value (as identified by Krugman in 1943), the specific piece of music used had not previously been played for the children in question.
- Unfamiliar Music: Ravi Shankar improvisation on sitar
 - Indian traditional music has not yet been played for the children at the Brilliant Stars, and therefore the instrumentation, scale/RAG and genre of this piece is unfamiliar for these children (however still considered relaxing calm).

Method:

Study conducted on 3 Groups:

- Nursery 1 (age 2-3)
- Nursery 2 (age 3-4)
- Reception (age 4-5)

Day 1: (familiar music)

Day 2: (unfamiliar music)

- I. Play music at same volume and in same method as usually done (before first child arrives)
- II. Observe children and their actions to create as control (the usual)
- III. Take notes of specific children and their reactions:
 - Behaviour when arriving and saying goodbye to parents
 - Crying/tears present
 - Ability to stick to silent play (alone)
 - Need to stay close to teacher

Considerations:

- The pieces of music considered familiar at this pre-school, was western classical, however this may not be the reality at other pre-schools.
- Other aspects may need to be considered when observing behavior such as: different days of the week, amount of sleep the night before, how much they ate in morning.
- This study was not video-recorded as many parents were sensitive to this.
- Should conduct study more times for more interesting observations, however questionable to do same study multiple times on same children (sitar music not so unfamiliar).
- In order for the teachers not to affect the results, they were asked not to act in any unusual way with the presence of the music, and not avert the attention of the children to the change in music.

Appendices 5: Nap-time Study Write-up

Aims:

- In this experiment, the aim is to investigate whether the presence of familiar music aids 2-5-year-old children relax, feel comfortable and calm at resting time in pre-school.
- To observe a group of children resting with the presence of and without familiar music.

Background Information:

- Field, T. (1999). Music Enhances Sleep in Preschool Children.
 - Faster & better sleep = Effective → better social interactions & Enhanced learning
- Graham, R., Robinson, J. and Mulhall, P. (2009). Effects of concurrent music listening on emotional processing.
 - Relaxes attention mechanisms (especially when threat detected)
 - Improves cognitive task performance (with task-irrelevant mental activity)
- Self-conducted Interviews with teachers

Purpose Statement: The purpose of this experiment is to discover whether the presence of familiar music aids 2-5-year-old children at resting time in pre-school.

Purpose Question: Does the change of familiar music to silence as background music change the behaviour of children's resting?

Hypothesis:

My expectations (based on research – both primary and secondary), are that the presence of familiar music will aid the children relax, feel comfortable, and therefore sleep better and faster, with less help from the teacher.

Materials:

- Familiar Music: A piece of music that was often used to put this group of children to sleep – Johannes Brahms, Clarinet Quintet in B Minor.
 - Familiar genre and time period, familiar instruments, (familiar piece of music)

Method:

Study conducted on 2 Groups: (These were the only children expected to fall asleep at nap-time.)

- Nursery 1 (age 2-3)
- Nursery 2 (age 3-4)

Experiment conducted on 3 consecutive days in the following way:

- I. Play familiar music (Brahms) at same volume and in same method as usually done (while children are getting changed and lying down)
- II. Observe children and their actions to create as a control.
- III. Every 10 min turn music down until silent and observe changes (In order not to surprise the children with sudden changes, the music was carefully and gradually decreased and increased.)
- IV. Turn music back on and observe again.
- V. Observe and take note of the children's reactions both when music turned down and then back to control of turning music on. Such as:

- Amount of talking
- Amount of movement of children (Wriggling in beds)
- How much they need the teacher's assistance
- If any crying or tears present

Considerations:

- The pieces of music considered familiar at this pre-school, was western classical, however this may not be the reality at other pre-schools.
- Other aspects may need to be considered when observing behavior such as: different days of the week, amount of sleep the night before, how much they ate in morning and overall familiarity with the pre-school.
- This study was not video-recorded as many parents were sensitive to this.
- Should conduct study more times for more interesting observations

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