CHILDREN'S PERCEPTION OF EMOTION IN MUSIC

A CROSS-CULTURAL STUDY

Azadeh Okhovat Poudeh

Master's Thesis

Music, Mind and Technology

Department of Music

19 November 2015

University of Jyväskylä

JYVÄSKYLÄN YLIOPISTO

Tiedekunta – Faculty Humanities	Laitos – Department Music Department
Tekijä – Author AZADEH OKHOVAT POUDEH	
Työn nimi – Title CHILDREN'S PERCEPTION OF EMOTION IN MUSIC	
Oppiaine – Subject Music, Mind & Technology	Työn laji – Level Master's Thesis
Aika – Month and year AUGUST 2015	Sivumäärä – Number of pages PAGES: 63 or 95 with Reference and Appendixes

Tiivistelmä – Abstract

Previous research revealed that Western lullabies and children's songs are mostly in the major mode, and children demonstrate a positive-major/negative-minor connotation that conforms to the conventional stereotype. The aim in this current study is to analyze the same topic in Finland and Iran where most lullabies are in the minor mode. The overarching question addressed is whether or not cultural background and the music mode, a child tends to be exposed to early in life affects later emotional responses to different music modes.

Quantitative data was obtained from 5-8-year old children (n=44) and mothers (n=39) in mentioned countries. Background questionnaire and questions about twelve Finnish and Iranian music excerpts representing two modes and three genres were asked from participants. The main significant results show that Iranian children feel more positive (happy or relaxed) in response to the minor music than Finnish children, while Iranian and Finnish mothers both feel contentment in response to minor. In addition, unlike the Finns, Iranian children prefer to listen to the minor mode. These results demonstrate important effects of early music exposure on later emotional responses to music. Moreover, in this study, music familiarity and music preferences were assessed in both nationalities.

Asiasanat – Keywords

MUSIC, LULLABY, MAJOR, MINOR, VALENCE, EMOTION, MUSIC PREFERENCE, CULTURE, MOTHERS, CHILDREN

Säilytyspaikka – Depository	
Muita tietoja – Additional information	

ACKNOWLEDGMENTS

I would like to thank my supervisors, Dr. Geoff Luck and Dr. Reza JohariFard, for their patience, support, help, advice and encouragement throughout the process. Finding the idea of the research, starting the process and continuing it to the end, would not have been possible without their support. I have learned a lot from them, so many useful hints which are not only useful for this research but also for my whole life. In addition, I want to thank Marc Thompson and Markku Pöyhönen for keeping me motivated to continue my research and for supporting me to find a comfortable place of research for my participants.

I'm extremely grateful to my unique and wonderful parents – Forough and Masoud Okhovat- for all of their support. They have done whatever they could and even more than that for me during my life (especially since I've stayed in Finland) and have always encouraged and supported me to follow my dreams. I believe that I will never be able to compensate their kindnesses. Also a big thank and hug to my lovely sister, Azar, and brother, Bahman, for making me laugh and being positive whenever I felt homesick or depressed.

One special thank you to Kian, my 3-year old nephew, and all of my students during my 8 years of experiences of music teaching in Iran, for their reactions and interests in music and for giving me the main idea of my thesis.

A big special thank to my friends, Leena Ritocangas and Dr. James Robertson, for their help to edit the proofs of my thesis in different languages. In addition, I want to thank Mari Erkama, Riikka Karvonen and especially Hannele Välipakka (for their help and support to perform my research in the Finnish language) and Ali Moazemi (for helping me to learn a lot about SPSS).

And finally, I want to thank Neshat Okhovat, Ramin Rezaei, Houra Saghafifar and two Iranian institutes Naghmeh Goshayesh and Honarkadeh Nava for all of their support and help.

CONTENTS

1 INTRODUCTION

Birth and growth in different cultures and societies produce individuals with dissimilar preferences and thoughts. People in the same society have more similarities and background than those from different societies. Traditions and customs, climate and nature, ethnic evaluation and unwritten rules, lifestyle and many other factors contribute to these differences. Such factors create many differences between different nations. According to Hazel and Shinobu (1991), "people in different cultures have strikingly different construes of the self, of others and of the independence of the two." (p. 224). These differences and interpretations of self and society can influence individuals' determination, cognition, emotions and motivation even more than what was imagined before. According to their research, it can also affect "interpersonal phenomena". For instance, Hazel and Shinobu (1991) describe how Japanese have different conceptions of individuality compared to Americans.

Many studies have examined music perception in different countries. According to Eerola et al. (Eerola, Himberg, Toivonen, Louhivuori, 2006), in addition to the importance of psychophysical cues such as tempo, melodic and rhythmic complexity, enculturation also plays a significant role in perception of music. Eerola et al. compared ratings of melodic complexity of Western and African participants for folk songs characteristic of both cultures. The similarity of responses was greater within the group in comparison to those between cultural groups. The results of their research showed that musical enculturation influenced melodic complexity ratings. Balkwill and Thompson (1999) have described a model based on a combination of psychophysical and cultural cues from perception of emotions in music. They considered that cultural categorization and music background cause different responses from listeners, which exists due to the role of culture-transcendent and culture-specific factors.

According to Eerola et al. (2006), topics in cross-cultural studies of music have ranged from:

> "Emotional responses to music (Gregory and Varney, 1996; Nagasato and Hoshino, 1996; Meyer et al., 1998; Balkwill and Thompson, 1999), to melodic expectancies (Castellano et al., 1984; Krumhansl et al., 1999; Krumhansl et al., 2000), to pulse-finding (Magill and Pressing, 1997; Stobart and Cross, 2000; Toiviainen and Eerola, 2003), and to interval discrimination (Sampat, 1978)" (p. 338)

Unyk et al. (1992) investigated lullabies in various cultures and discovered that they were simpler for infants to be understood and perceived than other folk melodies, due to the fact that the melodic structures and infant-directed speech in the lullabies are very near to each other and mirror each other's properties.

Many studies have shown that the background of listening to music and the habits of individuals can develop, even from before birth, in line with the musical background of the family and their listening preferences (Campbell, 2000). In the book "The Mozart Effect[R] for Children: Awakening Your Child's Mind, Health, and Creativity with Music", Campbell (2000) has discussed the 'Mozart Effect', and illustrates how, by listening to Mozart's music, mothers can direct the music tendency of their children and infants and how this effect can improve the listeners' concentration and speech skills, and advance their reading and language abilities. In Pearce's idea (1992, 1993), Campbell explained which rhythm and tone components would be useful for children's development, and how music affects not only their brain and sensory system but also their social and academic skills. However, this is not possible, unless parents start the process as soon as possible, and usually they choose music for listening based on their preferences.

The evaluation of the melodic complexity and the perception of emotions in music from the cultural point of view have been studied somewhat less. The majority of studies on different aspects of the perception of emotions in music and the music cognition have focused on the role of cultural cues in the context of Western music, with only a few studies examining Eastern music traditions. For instance, studies on which the present work is most closely related, such as those by Kastner and Crowder (1990) and Nawrot (2003), have investigated children's music perception of emotion in different modes, e.g., 'major' and 'minor', but their participants were selected from Western countries, and the stimuli presented

were based on Western music rules, which might be different in Eastern countries with different music and music tastes. The present study builds upon and improves this work by examining the role of culture, lullabies and music preferences of the family on children's perception of emotion in music. The participants and stimuli were drawn from two culturally dissimilar countries, Iran and Finland. The overarching question addressed is whether or not cultural background and, more specifically, the mode of the music which a child tends to be exposed to early in life, affects later emotional responses to music characterized by different modes.

Overall, it can be possible to investigate what has a greater effect on the perception of emotion in music; either culture, age, nostalgia or none of them and whether all various cultures have the same emotion about two different modes in music or not.

Lullabies emerge from the varied cultures of nations. They deserve to be studied more thoroughly, due to their important value in children's development. This research, therefore, may be one progressive and fruitful step in identifying the impacts of lullabies. While the visual skill of an infant is not yet fully grown, he is able to detect his mother's voice from other voices even before his birth. At the first step of his life, this ability can be useful to help the infant to become familiar with the two main Western modes, major and minor. Moreover, this valuable ability of auditory can help the baby to perceive the emotion in different music modes and the lullabies of their parents which develop their music abilities in different stages of growth.

1.1 What are different modes in music?

A scale (a selection of ordered pitches that provides the pitch material for music) is a collection of pitches in which the intervals between each can be either whole steps or half steps. A diatonic scale always contains five whole steps and two half steps. The specific pattern of these whole and half steps is determined by the mode. The music with which we are the most familiar is based almost entirely on two modes: major and minor. These have been common in Western music since the seventeenth century. Usually, the mode used in a composition changes the mood or character considerably. The major mode is often described

as sounding cheerful, the minor mode as more unhappy and sad (Kerman & Tomlinson, 2008). In the major mode, two half steps occur between the third and fourth scale degrees and between the seventh and eighth scale degrees. The remaining intervals are whole steps.

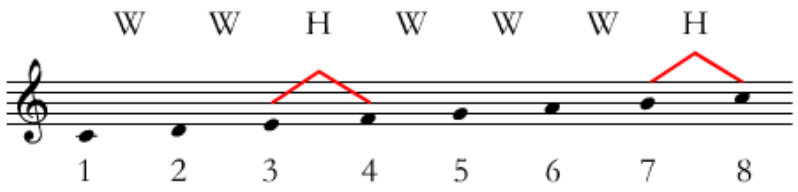


FIGURE 1: Major mode

In the minor mode, two half steps occur between the second and third and between the fifth and sixth scale degrees. The other intervals again are whole steps.

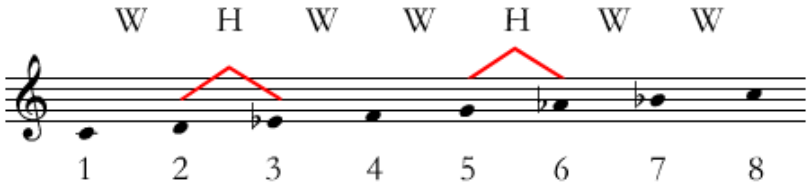


FIGURE 2: Minor mode

1.2 Research questions

Now, how can these cultural and historical backgrounds affect the music perception and cognition of people at different generation? What is the role of a different structure of music based on different cultures on feeling emotion in music distinctly? How can a family's music preferences and background change the musical tastes and perception of the child in that family? Many other questions in this area could also be investigated. In this research, these diverse probe questions are narrowed down into comparing the children's perception of emotion in music in two different countries with dissimilar cultures but similar music features and lullabies. This research tries to answer questions concerning the following four main areas of this study:

1- The role of culture in children's perception of emotion in music, especially in two different modes:

   Do children from different cultures with multifarious music in their country have different emotions by listening to the major and minor modes (while the other features such as timbre, meter and tempo are similar)? Do lullabies in different cultures affect the children when musical perception is concerned?

2- The background engagement with music in children and their parents and its effect on their music perception:

   Do the listening habits affect the perception of emotions when children are listening to music? Does singing lullabies during the first years of children's lives affect the development of their musical perception?

3- Comparing music preferences in family members and different countries:

   Is there any relation between the children's and their mothers' music preferences and perception of emotions?

4- The familiarity of music and the musical preferences:

   Do children and their mothers prefer to listen to familiar music? Does the familiarity of the music affect their musical preferences as well as their perception of emotion in music? Is there any relationship between children and mothers' familiarity of music? Do these two groups prefer to listen to music which is from their own country?

2 BACKROUND AND PREVIOUS STUDIES

The following section explains separately research on infants' and children's musical abilities and preferences, the perception of emotion in music in different cultures, lullabies and their effects as the first musical event in life, the role of folk music and lullabies in Finnish and Iranian cultures and the differences of music education in Iran and Finland. These then brought together to support the hypothesis that the two different cultures affect the perception of emotion in music.

2.1 Infants' and children's musical abilities and preferences

From the lullabies that our parents sing to us, to nursery rhymes we are taught at school, our lives begin surrounded by music. Research suggests that infants' lives begin with a number of important skills, such as frequency coding mechanisms and multisensory connections. They facilitate a range of musical behaviors (Thompson, 2009). Infants are capable listeners from a very early age. In fact, it is during the third trimester of pregnancy that mothers-to-be experience fetal movements in response to auditory stimuli (Abrams, et al., 1998). Zoltán Kodály (1882-1967), when was asked at what age a child should begin learning music, replied "in the womb". One researcher (Thelen, 1994) has discovered that three-month-old infants learn to pull a string attached to their ankle once they realize that music is their reward.

There have been several studies on mothers' musical preferences and their relation to the preferences of their infants. The results of such studies indicate that, to some extent, there is a correlation between mother-infant music preferences (Thompson, 2009; Soley & Hannon, 2010; Walworth, 2009; Einarson, Corrigal & Trainor, 2012; Morgan, Kilough & Thompson, 2013 Egerman, Chuen & Macadams, 2012). Generally, the term 'musical preference' is explained by Schulten (1987) as elements, parts, or objectivities of musical socialization. But still there is no concrete definition of what is meant by musical preference (Schulten, 1987).

There are several factors that may affect musical preferences such as ethnicity and social, demographic, personality and cultural factors (Juslin, 2008; Schulten, 1987). Thompson (2009) suggests that a human fetus is affected by all these factors from the very

beginning since the fetus can hear, process, and remember musical patterns. Infants have a remarkable ability to discriminate pitches and rhythms, and prefer consonant intervals to dissonant intervals (Thompson, 2009). It was further explained by Thompson (2009) that infants are attuned to the connection between rhythm and movement, implying that the two senses are naturally intertwined. Studies have shown that human infants have the ability to understand and appreciate the music in their environment, which is known as enculturation (Thompson, 2009). Many reports also affirm that even infants have the physical capacity to distinguish pitch differences as small as the half step that separates the major and minor modes (Bridger, 1961, Dowling 1982).

Through musical activities, babies develop social, language, and communication skills (Walworth, 2007). Many linguistic therapy methods intentionally or unintentionally use hearing, musical skills and lyrics to improve the social skills of children. It was later explained by Soley and Hannon (2010) that infants prefer the structures of their native culture and familiar faces and languages. That raises the possibility of infants' preference for listening to the music of their own culture. It seems culture is an inseparable part of an individual. Studies by Soley and Hannon (2010) have shown that an infant and a fetus respond differently to specific songs after a prolonged exposure. This response leads to subsequent changes in heart rate and movement upon hearing a familiar song (Soley& Hannon, 2010).

Rhythmic movements may be the product of auditory-motor neural pathways (Morgan, Kilough & Thompson, 2013). It has been shown in previous studies using folk songs that infants are able to discriminate a familiar folk song from an unfamiliar one, and demonstrated comparable discrimination abilities for familiar and foreign structures (Soley & Hannon, 2010). Researchers have investigated the role of familiarity in not only the infant's auditory ability but also the visual ability. Soley and Hannon's (2010) studies concern the infants' preferences towards familiar faces. However, studies by Morgan, Kilough and Thompson (2013) found another important factor which has shown that visual stimuli are dominant over auditory stimuli in infancy. These studies might imply that infants react more towards a song sung by a familiar person, usually their mothers, or music heard in the presence of a familiar face. Walworth (2007) stated that, when accompanied by a familiar

person, infants also responded by gazing, smiling, vocalizing, cooing, kicking, tapping, waving, and reaching out to touch the mother's face or a musical toy when the mothers initiated music-play actions.

A newborn's preference for specific stimuli, such as his mother's voice and smell, brings a new hypothesis to mind that there may be a connection between mother-infant musical preferences, so the infant may prefer to listen to the same music genre which the mother has listened to (Walworth, 2007). This particular music is the one that the infant could hear after his or her auditory abilities formed completely in the first three months of life in the womb. However, we should consider that the mother's body and the amniotic fluid act as a low-pass filter, so all sounds in the uterus are muffled. These studies and many others as well have demonstrated that infants are sensitive to emotional information specified in music.

With regard to infants' pitch discrimination and preference, Ilari's (2010b) research has been stated and concluded very well. According to him:

> "Infants perceive pitch while still in the womb (Lecanuet, 1996). From the third trimester of prenatal to the third month of postnatal life, infants discriminate low pitch sounds (Lecanuet, Graniere-Deferre, Jacque and DeCasper, 2000), and hear them better than sounds with high pitch (Werner and VandenBos, 1993). This pattern reverses with development so that by six months infants prefer higher pitched sounds over lower pitched ones (Werner and VandenBos, 1993). On that note, Olsho (1984) compared 5- to 8-month-old infants' and adults' discrimination of high and low pitches, and found that infants discriminated high pitches better than their adult counterparts. It seems that infants not only discriminate high pitches better than low pitches, but also have a preference for this type of pitch." (p.313)

For older children, musical abilities change in many cases. Many of the studies available on children have focused on their ability to perform analytic tasks, however Eugenia's research (1996) investigated "young children's ability to perceive mode changes in music and to identify major and minor stimuli. The results showed that children were able to express their perception better through verbal than non-verbal responses." (P.1-2). In this research, after training children to use the words "major" and "minor", they were asked to clap or move when they heard a change in the music and label the song according to whether it was in the major or minor mode. The results showed that kindergarten children (five-year-olds) identified mode changes more accurately than pre-school children (four-year-olds) and

were able to perceive more than half of the mode changes when using the terms 'major' and 'minor'. Also, it was an interesting feature that song familiarity did not affect the children's performance. But in that study there was no part about the mode-emotion of children. Besides Eugenia, Nawrot (2003) recorded children's verbal expressions for her research.

Hair (1973) found that first-grade children could discriminate between the root position and the inverted tonic and dominant seventh chords. According to Bartlett and Dowling's (1980) research, which was for different age groups such as five, six and eight-year-old children, they all can distinguish transposition of familiar melodies with the exact same interval as the original but starting on a different pitch, from imitations, which had the same contours but a different interval. Imberty (1969) mentioned that eight-year-old children noticed a change from major to minor within a melodic line. Some studies have mentioned that four-year-olds can identify appropriate negative emotions in music by pointing to schematic faces (Cunningham and Sterling, 1988; Dolgin and Adelson, 1990; Terwogt and Van Grinsven, 1991). Thus it seems that many researchers have noted the major/minor connotations are intrinsic versus to those researchers who say they are learned. On the other hand, Gregory, Worrall and Sarge (1996) published the results of their research about the development of emotional responses to music in children in 1996 (Motivation and Edition, p.341-348) which was designed for children from three to four and from seven to eight years old and assessing their music emotions by choosing one of two schematic faces (happy and sad). That study indicated that children from seven to eight were almost as similar as adults in this detection process than three to four-year-olds. The younger children did not show any such significant cohesion between the emotional response and musical modes. Their conclusions supported the fact that the association between mode and emotion is acquired, it is not inherent. Their results have highlighted the role of family and culture which the children are belong to.

According to Terwogt and Grinsven (1988), and comparing five- to six-year-old children and nine to eleven ones, children who are older would be more accurate about emotions of musical fragments and their skills would be more similar to adults' distinction. Some emotions were more difficult than others to tell apart, for instance anger and fear were often confused. On the other hand, John Kratus (1993) investigated in two fields of study

concerning children from six to twelve years of age. The first aspect that he followed was to determine whether developmental, gender-based, or emotion-based differences made any difference in children's ability to interpret emotion in music. He found no gender or age differences, all ages and both genders were highly consistent in their interpretations. The second facet in his research was to determine which musical elements contributed to children's perception of emotions in music. His answer was the rhythmic activity and articulation in the excerpt. Rhythmic activity and meter were the fundamental features of the distinction between feelings in music.

One of the most important studies that inspired the researcher to do the current study was undertaken by Kastner and Crowder (1990). It mentioned that neither the arrangement nor the mode showed any significant main effect on the perception of emotion in music, however interaction between mode and arrangement was effective. For major-mode stimuli, the subjects associated unaccompanied items more often with positive emotions than accompanied ones. For minor mode tunes, the reverse was true. In their research they tested 38 American children, between three to twelve years old, who listened to twelve short musical excerpts which were considered in two main groups 1) major versus minor modes and 2) harmonized modes versus simple melodic realizations of modes. They used four schematic faces, 'happy', 'contented', 'sad' and 'angry' facial expressions. The children could then point to each emotional face based on his or her feeling during the music they listened to. In addition, they considered that the subjects of their study could distinguish stimuli on the basis of preference (exposure effect). Familiar stimuli tended to be preferred; novel stimuli tended to be feared.

Despite all these studies, research on maternal and paternal interaction and music is still limited and further investigation is needed (Walworth, 2009, Soley & Hannon, 2010; Kilough & Thompson, 2011). From the studies presented, it seemed that the most fruitful ones to use for the current research were those by Kastner and Crowder (1990) and by Nawrot (2003). This study will continue and complete the previous ones through performing the experiment in two countries, Iran and Finland, with different musical features in comparison to Western countries.

2.2 Different culture, different perception of emotion in music?

Previous research has indicated that emotion recognition in Western and Indian music might be based on universal features (Balkwill & Thompson, 1999, Fritz, et al., 2009). However, whether a similar cross-cultural comparison could reveal that 'music induces universal emotion' remains unexplored. It is clear that different pieces induced different feelings and psychophysiological activations in individuals. But is this difference similar in diverse cultures? Indeed, music from Western and non-Western cultures often sounds dissimilar. Non-Western music usually sounds strange and sometimes unpleasant to listeners who have only been exposed to Western musical structures (Schellenberg & Trehub, 1996) and listening to this kind of music could affect them differently. Helmholtz (1877) said that, although we have equivalent auditory systems, scale systems and tonality vary across cultures. Different cultures such as Balinese (pelog scale), Iranians (dastgah), Indians (thät) and Samis (Yoiks) use different tonal systems, then different ratios to form scales. It is therefore feasible to imagine these various scales fostering different auditory abilities and perception in children.

In this changing world, because of daily exchange of musical information between countries and different cultures, the effects of acculturation are also likely to change. Acculturation is a process in which members of one cultural group (usually a minority one) adopt the beliefs and behaviours of another group (usually the majority group). How much of musical perception depends on the innate predisposition and how much is the product of acculturation? Lynch et al. (1990) compared the ability of six-month-olds and adults (either musicians or non-musicians) to distinguish small mistuning sounds in melodies based on either major, minor or Javanese pelog (one of the two essential scales of gamelan music) scales. They concluded that infants detected mistuning in all scales, but the adults were better at detecting mistuning in major and minor modes than in the Javanese pelog scale. Further investigation will be needed in this area.

In addition, we cannot ignore the effects of personality on music preferences. In Rentfrow and Gosling's (2003) research, they analyzed the music preferences of over 3,500 individuals based on four music-preference dimensions: 'reflective and complex', 'intense

and rebellious', 'upbeat and conventional' and 'energetic and rhythmic'. For those categories, preferences were related to the factor of personality, views of the self and cognitive abilities. However, for children, everything could be different because their personality has not formed yet and their music could be different at various ages.

2.3 Lullabies and the first musical events in life

Night, darkness, going to bed and falling asleep while listening to the parent's lullaby, is the traditional scene that has inspired many people to sing for their offspring. Many composers and musicians such as Brahms, Mendelssohn, Chopin, Stravinsky, Schumann, Fauré, Debussy, Tchaikovsky and alike have composed lullabies based on folk music and cultures. Many lullabies have been transferred from one generation to the other during ages and they hide many different stories, aspects of history and cultures within them. Musicians have played and composed different lullabies either just for the bedside or to evoke this especial atmosphere in the concert hall, or sometimes it has been to tell a story on the stage – in a ballet or opera (Naxos, 2012). The similar characteristic of all lullaby pieces is a warm melody in a rocking rhythm which helps an infant or a child to feel safe and protected (Naxos, 2012).

Pelle (1994) claimed that the lullaby songs are universal. However, it seems that there are many differences in the words, tonality, dynamics and rhythm of lullabies in both Western and Eastern cultures. One song may include a bogeyman or a sandman, another one may reflect the anguish, sorrow and concerns of the lullaby singer. Again another one could be about either God and thanking Him or about nature and its beauty in negative or positive words. It is supposed that infants cannot understand the words although they most probably feel the atmosphere and emotion of the singer. As an example for this case, Pelle (1994) added that 'the words [of lullabies] in blended Portuguese and African dialect do not have a well-defined meaning, but give the impression of profound tenderness'. Many Western lullabies are either in the major or start in the minor and end up in the major, wishing the good things for the future (Pelle, 1994), a feature which might not be the same in other parts of the world.

The researchers should investigate infants, children and their facial reactions to music more seriously. Lullabies and music heard in the first years of life have the most effect on their musical perception and emotions.

In one study undertaken by Mualem and Klein (2012), the communicative characteristics of musical interactions were compared with play interactions between mothers and their one-year-old infants. Through their analysis they concluded that "the durations of physical contact, eye contact, and positive emotions and length of communication chains were significantly longer during the musical interactions than play one" (p.3). The musical interactions provided more positive emotional arousal and synchronization. Those are essential for child development.

Lullabies, which are usually slow in tempo and expressive, generally serve the purpose of soothing infants and sending them to sleep (Chen-Hafteck, 1997). Contrastingly, children's songs, which are characterized as being faster in tempo and having a wider pitch range than lullabies, serve the purpose of arousing and entertaining the child (Trehub & Schellenberg, 1995). Both of these, lullabies and children's songs, can be effective in creating communication between infants and their mothers and could cause different behaviors when listening to these musical styles. Rock et al. (1999) stated that when infants listen to lullabies, they tend to focus their attention on themselves and vocalize more than when listening to children's songs. Additionally, he claimed that these two kinds of music were useful in the regulation of infants' states and modulation of their behavior for purposes of communication.

Although it seems that lullabies have numerous impacts on babies' and their mothers' lives, there has not been a lot of research in this field. Many aspects of the roles of lullabies are still hidden and unknown. In addition, exploring this area should be done in such a way that ethical standards are considered as much as possible, since it touches the most important part of human life. Using any wrong stimuli during the research process may cause some negative effects to happen unintentionally.

There are also a lot of limitations in this area when one starts to investigate it. What has been clear so far is that lullabies are among the first efforts of mothers to communicate

with their infants verbally and to have a stronger relationship with them. In many cultures, such as the two cultures in this research (Iran and Finland), lullabies are sung based on the mothers' feelings. In these two nations, most of the lyrics in lullabies are said by the mothers as a kind of talking with their babies. The facts seem to be mostly about the mother's melancholy and anguish state because of being far from their husband or their concerns about the future of the baby which might be full of hardships and difficulties. This could be because of a hopeless current situation and no hopeful view for the future, however, more recently, lullabies have changed into calling the babies as the beautiful elements of nature (Barley and R. B., 2011; Asplund and Forstadius, 1989; Ghezelayagh, 2000).

2.4 The role of folk music and lullabies in Finnish culture

There are countless mother's songs, lullabies and humming in each culture and Finland is no exception. These songs and melodies have been a part of society and the culture's musical heritage and their words have been considerably varied and improvised individually during the years (UNESCO, 1996) and transferred orally from one generation to the next. In Finland, the main topics of lullabies are the environment and imagination and nature (Asplund & Forstadius, 1989). In these songs, the child is usually compared to a bird, grass, a flower, a cherry blossom etc. Mothers might call their infants as their dream child and think of the cradle as a suspended home for them. In one lullaby, for instance, they put one silk scarf on the child's eyes and help them sleep more easily.

The oldest registered lullabies are from the medieval era, and were sometimes similar to Catholic Church hymns that contained prayers (Asplund & Forstadius, 1989). In those songs, the singer hoped for the baby to sleep underneath grass and in a cottage of death which would be a place safer than the world for children. They usually showed the hardships of farmers' lives and the singer aimed to express her tiredness and sufferings in life, almost wishing death for her baby. In the past, life, especially for the women, was very difficult and when a mother sang a lullaby for her daughter, she imagined the same difficulties for her baby girl. Then, in the mother's idea, the death's cottage was the better place for her daughter than her poor husband's one. But also, the fear of a child's death was another topic in the former

lullabies. On the other hand, in the past, boys were more valuable than girls for the parents, because in old age, boys could help their parents more and this fact was reflected in the lullabies (Asplund & Forstadius, 1989). In addition, mothers told about their concerns for the future in their lullaby words.

In most lullabies, according to Asplund & Forstadius (1989) the main topic has been hoping for good things in life for children and the singer has hoped for babies to have a better life than their parents in the future. For boys, the mother wanted a higher position in society and for girls, a good marriage with a wealthy man.

According to many Finnish adults, today's children probably do not recognize many old elementary school songs any longer. There are some efforts to revive these songs and in some music albums (Alakansakoulun lauluja[1], 2003) it has been attempted to preserve this important part of the Finnish culture, which belongs to all generations. Those kinds of songs were played and loved a lot in Finland in the 19th and early 20th centuries (Mieskvartetti[2] Delicato, 2003). This might make the listening habits of music different between today's adults and children.

The old children's songs in Finland usually begin with praying, imagining children on their way to study and to play the epic speech about respecting the homeland in the different four seasons with their especial characteristics. Finally, it ends with something spiritual and lines about going to bed (Mieskvartetti Delicato, 2003).

In Finland, singing songs as a part of an education program started in the 1920s and moved into the Italian natural sound formation and training (Mieskvartetti Delicato, 2003). Siukonen (1916-1917) estimated that Finnish children's singing abilities were considerably worse than those in some other countries such as Sweden, Estonia and Germany. In addition, there was a lack of songs which could accompany children playing a game or gymnastics, and which would be easy to be accompanied by a harmonium (Mieskvartetti Delicato, 2003). In that period (1920-1930), the songs included folk songs as well as religious and patriotic songs. There were songs that respected the homeland, diligence, tidiness and good manners

[1] It means "A primary school songs"
[2] It means "Male Quartet"

and they were mostly sung within the family. However, the key word of the songs was the home and the heart of the home was a mother whose job was to take care of moral purity. A morally pure and warm home alongside an important metaphor belong to the vocabulary of the songs from the Finnish countryside but not from the Finnish city streets.

2.5 The role of folk music and lullabies in Iranian culture

In the lyrical and musical history of Iran there have not been many songs especially sung and composed for children, although, because of their simplicity, folk-like feeling or specific rhythm and melody, many songs have become part of the children's world. Those songs which mostly reflect the adults' and more specifically mothers' views, messages and wishes, have gradually changed into lullabies and children's music (Pournemat, 2013). Since there are many different ethnic groups living in different parts of Iran in various climates and environments, their music and lyrics have different characteristics. However, most of them, while making the baby happy and calm, also try to talk and sing about the mothers' thoughts and concerns. In addition, the songs are about their cultures and social situations and also about the position of women (Pournemat, 2013). Indeed, lullabies are the oldest folk songs which are part of feminine literature in the history and archaeology of Iran (Yaghmaei, 2014). These folk songs have been transferred during hundreds of years through generations and it is a part of folk and unwritten literature of this huge and ancient land. The poets of these songs are either the mothers or unknown persons.

According to Yaghmaei (2014), lullabies have two parts, the lyrics and the music. The music of the lullaby is what is perceived better by the children, however, the lyrics are formed by the mothers. In her research, Yaghmaei (2014) realized that children never learn the lyrics of lullabies and they will not use the words of lullabies in their imagination and stories. They just pay more attention to the tone, melody and atmosphere of the song. The interesting view in Yaghmaei's research (2014) about the rhythm of Iranian lullabies is the rhythmic difference in southern and northern Iran. According to her, based on the amplitude range of the rocking motion of the infant's bed, the rhythm and tempo can be different. In the south, the mothers usually use a hammock which has a bigger amplitude than the small cradles in

northern Iran. The rocking bed of southern Iran is something very similar to a hammock and it is named 'Nano', which comes from 'Naneh', the word used for mother in the villages of Iran. The cradle in the North is very similar to old wooden Western cradles with a small swing amplitude.

Nevertheless, many times, mothers sing their lullabies without a special rhythm or rhymes. The feeling and emotion in their singing varies a lot and plays an important role. Almost all the lullabies and improvisations in Iran are usually sung in two modalities, *Homayoun* and *Shour*, and more specifically *Bayat Esfahan*, which is very near to the minor scale in the Western tonality. The only difference of Bayat Esfahan is that the sixth tone is a decreased quartertone (which is named *Koron* in Iranian music) but in harmonic minor[3], the sixth tone is decreased by half a tone. Thus the sixth tone of Esfahan is a quartertone higher than the harmonic minor; otherwise they are the same as in Western music.

The content of lullabies can be categorized in several groups. In some of them, the mother wishes health and wealth for her baby and entrusts her to the saints in her religion and wishes for success in the future. In addition, she imagines a good marriage and spouse for her baby. She asks her baby to appreciate her and the father for their efforts and kindness for bringing him/her up. In others, she ensures her baby that he/she is not alone at all. She starts almost complaining in some lullabies, because of the baby's sleeplessness and the fact that she is thus unable to go to sleep herself. In another branch of lullabies, the mother calls Lulu (a kind of monster) to help her, not to frighten the baby, but in a clever way, to scare Lulu from the baby. Therefore, in this way, she helps the baby to increase her/his self-confidence. For instance, she might say: "Lulu go away, our baby is a good baby and will sleep now. Our baby has a brave father, go away, otherwise he will come and get you with his sword" (Yaghmaei, 2014).

In some of the lullabies, the mother uses a short story which is either a religious one or not. She sometimes describes her situation that day for her baby in the form of a lullaby. She talks about how her husband (the father) leaves the home to fight and defend their homeland,

[3] In a **harmonic minor** scale in the seventh note is raised one semitone which makes it different from a **natural minor** scale.

or how she will get happy because of seeing her husband returning home in good health. In some of the lullabies, the mother mentions the village or city where they live (i.e. the geographical location).

Through some of these songs mothers have tried to define the child's social roles based on gender; nevertheless, in many other songs gender does not have an important role. It might depend on the city and culture of that city. In the lullabies for a girl, the mother usually has mentioned the value of being a wife and mother and hopes for an affluent and comfortable life for her daughter. Although in many parts of Iran the songs show a tendency to value boys, in some parts, like Boushehr (the south-west), they show preferences for having girls. The boys' roles in lullabies are mostly to be good 'deputies' of their father for financial support. The boys should improve the economic situation of the family. The lullabies also speak about the boys' bravery and power in the war, to be like a lion (Pournemat, 2013). According to Yaghmaei (2014), lullabies and folk songs have played an important role in preserving the different dialects and languages of various ethnic groups around Iran.

2.6 Music Education in Iran and Finland

Before one can study a musical field in different cultures, like in the current study, especially in the childhood period, it is necessary to look at the similarities and differences between music education in those cultures (i.e. in Iran and Finland). Since the children who participated in this research are from 5 to 8 years of age, it is possible that many of them have been learning music at school for different lengths of time. This can probably be a kind of important factor to influence the results. About 66.7% of the Iranian participants and 68.4% of the Finnish ones mentioned that they were learning music at school. So, besides a discussion for comparing musical education in these two countries, the effects of school on the children's perception of emotion in music in these two countries will have to be considered. In many cases this comparison might almost be less possible because of different situations in these two countries.

The most obvious difference is that there are different education rules in these two countries. In Iran, music and especially music for children is a controversial issue because of religious beliefs. Many religious families cannot accept that their children go to music classes. In addition, music instruments and music classes are very expensive and fancy there. It is forbidden for schools and free governmental institutes to have music classes. Learning music is only possible in private or semi-private institutes. Regarding these aspects, there is no specific curriculum in Iran for music. However, what exists is mostly based on the Kodály method. Since Kodály (1882-1967) saw music as a rich and powerful educational tool, in his music teaching method he has used it for teaching coordination, memorization, cooperation and discipline skills. Another possibility for children to experience music at schools in Iran is singing either the anthems mostly in Marsh rhythm and about Iran, the defense of the homeland and martyrs, or Quran and the religious concepts of Islam in the hymn form (only boys are allowed to sing hymns in public). However, most often these musical experiences are not taught by a teacher with enough musical proficiency.

Anyway, what children's music teachers in Iran have for this purpose is based on two important teachers' opinions. They are the most famous and trained teachers in Iran, Mr. Naser Nazar and Mrs. Soudabeh Salem. Nazar's method[4] is completely based on a Western classical method in children's music education, which is the Orff method. He follows classical music more than the traditional music of Iran or he just follows the part of traditional music which is nearer to Western music. On the other hand, Salem's method is based on the traditional and ethnic music of Iran. She has developed Orff's instruments in order to play quarter tones, which exist in Iranian musical instruments like the Tar, the Santoor, the Ney and so on[5]. According to Nazar, teaching musical instruments to children can be started from six-year-olds, but in Salem's opinion children younger than nine years old should not play an instrument. They should only train their ears and singing skills before this age. In Salem's method teaching Iranian musical instruments and Iranian Scales (Dastgah) and rhythm are

[4] For more information you can look at his webpage in this link (Retrieved August 6, 2015): http://pars-music.com/Pages/ShowPage.aspx?id=8

[5] Look at this video as an example of Salem's method (Retrieved August 6, 2015): https://www.youtube.com/watch?v=HYHJGSnbmhI.

priorities, however in Nazar's method the main aspects are teaching music and singing to children based on World music and specifically Western classical music.

It seems that the best method would be a kind of a combination of both methods. Experience has shown that children are able to learn a musical instruments (specifically Orff instruments and the recorder), for instance from 6 years old. Playing a simple musical instrument with a fixed and precise tuning can improve musical listening skills in children. Thus, Iran lacks a curriculum for teaching music in schools. The only sources which may be used in the present study are Nazar's and Salem' ones. Unfortunately, many music teachers ignore both methods and without knowing enough about this important educational method, start to teach music to children just based on their musical knowledge as an adult. This may mean that their methods are the same as when teaching music to adults. Actually, their method could be harmful for their little students in some cases because it could be difficult and boring for children, who then might decide to give up music forever.

On the other hand, the Finnish music education is based on the one implemented by the Finnish National Board Of Education (Suomen Opetushallitus) which is available in "The National Board of Education" (Opetushallitus Utbildningsstyrelsen) webpage[6]. The last version of this curriculum is from 2004 and in chapter seven, decree fifteen, it discusses music for two different age groups, which are grades one to four and the other grades five to nine. The group for our comparison is the first group, which starts from the first grade and ends after the fourth. The main target in the Finnish curriculum (OPH), as it is in the two Iranian institutes' curriculum, is to help the pupils to find their interests in music and encourage them to engage in musical activities. This kind of activity is not only useful for a better growth and development in children but it is also good for them as an entertainment. Children may express themselves in the forms of music in which music may have therapeutic effects. Teachers should provide students with the opportunities for listening to music excerpts. The students should also understand the musical concepts deeply and find their musical identities through different genres of music. The curriculum tries to motivate children

[6] Suomen Opetushallitus [The Finnish National Board Of Education] (Retrieved August 25, 2015): http://www.oph.fi/english/curricula_and_qualifications/basic_education

to listen to music and even to practice and play an instrument in a group which would also develop their social skills.

One of the differences between the Iranian and the Finnish method is probably when choosing music for teaching children. In the Finnish method, children are supposed to learn different musical styles of the world, however, in Iran, teachers allow them to learn some folk and classical music of the world, but not Jazz, Rock, Rap or other genres. In addition, as another difference, it can be mentioned that dance and movement have a role in the Finnish method, whereas this is very limited in Iran. Additionally, children in Iran have fewer opportunities to observe musicians, live performances and concerts than the Finns have. All these possibilities for Finnish children help them to perform music better and be good in improvisation, which is hard for Iranian children.

Overall, the most important factor is that it is essential in music education that the teaching curriculum should involve cultural concepts, integrate them with the systems approved in the world, and improve the quality of the learning process and results. All in all, it seems that Finnish children know more about World music than Iranian children who are more in contact with their own culture.

2.7 The current study

The overarching hypothesis of the current study is that culture will affect perceiving the emotions of music in different music modes. Nevertheless, as a second hypothesis, changing perceived emotion of music in major and minor modes in different generations (children and adults) will be expected. The reason for this expectation could be changing the culture of society. Since the culture is a dynamic and changeable concept and it changes through passing the time.

To measure the perception of emotions in music, four paradigms of emotional faces which indicate either positive or negative emotion were employed. Twelve music excerpts, six Finnish songs and six Iranian ones, which were grouped in three genres and two modes

were played for each of the participant. The participants from Finland and Iran were also from two age groups, five to eight-year-old children and their mothers (their mean age was 37). After listening to each song, participants had to indicate whether they perceived the emotion of that music positively or negatively by choosing one of the four emotional faces.

The songs were chosen only from Iran and Finland because of one more aim in this research: to examine the influence of the familiarity of the music and the participants' musical preferences in each country. It assumes that the memories of one song and the musical background of one participant could change the results of musical preferences at different generations.

The current study hypothesizes that the lullabies of different cultures will play a salient role in influencing the young participants' perception of emotion in music, because they were sung by mothers who are the source of relaxation and safety for the children. Such a hypothesis is drawn from studies showing that the major mode is perceived positively by Western children whereas the minor mode which has a negative valence for them (Kastner and Crowder, 1990; Nawrot, 2003). However their research did not consider Eastern children's musical valence in different mode, the children who are growing in cultures with different music features.

3 RESEARCH METHOD

Given the scarcity of research on the perception of emotion in major/minor modes in the context of lullabies as culturally-driven phenomena, combined with the impossibility of identifying the music used in specific studies (such as that used by Kastner & Crowder, 1990), a new cross-cultural research design and method was implemented. As has been shown above, the major mode is commonly associated with positive valence and the minor mode with a negative one. The present study introduces culture into the equation, examining whether these associations hold for children in Iran and Finland. These two countries were selected because it seems that these two countries favor minor over major music in comparison to many other Western countries (Asplund and Forstadius, 1989; Barely, 2011; Ghezelayagh, 2000). Any differences found in mode-emotion association might then be reasonably attributed to cultural effects. The approach is mainly based on the work of Kastner and Crowder (1990) and Nawrot (2003).

3.1 Participants

The subjects in this research were Iranian and Finnish mothers and children, the main emphasis, however, was on the children. The participants were chosen randomly and by spreading notices in different places such as the University of Jyväskylä in Finland and music institutes in Iran, as well as in kindergartens and schools and using online advertisements in the social media in two cities, Isfahan (Iran) and Jyväskylä (Finland). In addition, because the role of culture and parents in this probe were also important, it was designed both for the children and their parents, mainly for their mothers.

The collected data consisted of a group of 24 children in Iran, 10 girls and 14 boys. In Finland, there were 20 children, 11 girls and 9 boys. In both groups, the children's age was from five to eight years (in Iran the mean age was 7.1 and in Finland it was 6.2). About 95.8% of the Iranian children who participated in this research were the first or the second child in their family, whereas this being the case for 90% of the Finnish participants. The children could be literate or illiterate, with musical skills or without them. Moreover, not only 75% of

the children from each country liked music very much, but also 66.7% of the Iranians and 68.4% of the Finnish children already had musical skills.

Their mothers formed the adult group and it consisted of a group of 21 Iranian mothers and 18 Finnish ones. They were analyzed using two features. The first one was the role of culture and background of music listening in the child's life, and the second feature was the role of age and memories in order to form a perception of emotion in music related to the major and minor modes. The mean age for Iranian mothers was 35 and 37 for the Finnish mothers. In both countries the mothers in this study were thus from the same generation. All the participants, whether adults or children, were interested in listening to music, even though they had different music preferences. They spent different amounts of time listening to it and in both adult groups they preferred to listen to music more often either during driving or while they were taking a rest or reading.

TABLE 1. The list of participants' details in two countries.

IRANIAN CHILDREN	FINNISH CHILDREN
Number → 24	Number → 20
M or F → 14 M and 10 F	M or F → 9 M and 11 F
Age → from 5 to 8, mean=7.1, max (6 persons in 7 years old and 8 persons 8 years old), min (1 person in 5 years old).	Age → from 5 to 8, mean=6.2, max (8 persons are 5 and 10 persons in 6 and 8 years old, equally) min (2 persons are 7)
Literacy → 13 lit. and 11 illit.	Literacy → 5 lit. and 13 illit.
Which child → 95.8% were first or second child	Which child → 90% were first or second child
Like or dislike music → 75% of them liked music a lot	Like or dislike music → 75% of them liked music a lot
Music skills → 66.7% had music skills, the rest were listeners	Music skills → 68.4% had music skills, the rest were listeners
Type of music pref. → pop music/70% energetic and happy music	Type of music pref. → 61% children's music / 84% liked happy music
Speed of music → only 16% liked slow music	Speed of music → only 10% liked slow music
Listening partners → parents, group, family	Listening partners → alone
IRANIAN MOTHERS	**FINNISH MOTHERS**
Number → 21	Number → 18
Age → 35	Age → 37
How many children →45.8% had 1 child and the rest 2-3 children	How many children →15% had 1 child and the rest (85%) 2-3 children
Attitudes to music → 80% liked it very much	Attitudes to music →100% liked it very much
Music skills →54% were music listeners, not players or singers	Music skills →15% were music listeners, not players or singers
The amount of listening to music → 66% less than two hours	The amount of listening to music →65% two hours and more
Music pref. →66.7% Iranian classical music, 25% Western classical music	Music pref. →30% Western classical, 30%Rock, 25%Pop, 5% Jazz
Don't like→ 72% heavy metal	Don't like→27.8% Heavy or Rap, 16.7% Finnish hit songs (Iskelmä) or Jazz
Music listening partners →41% alone and 40% with children	Music listening partner →70% alone and 45% with children
Music listening situation →52.2% while driving, 39.1% rest or study	Music listening situation →80% while driving, 20% resting or studying
Lullaby singing →46% often or more, 33.3% every night	Lullaby singing →50% often or more, 40% every night

3.2 The stimuli used in the study

Since this research is about the musical perception of emotion, the main stimuli had to be musical. In addition, because of the young children, the researcher tried to choose short and understandable pieces of music. The excerpts were chosen and categorized based on three aspects which were the genre, the country and the music mode. Twelve music excerpts (about 25 seconds of each original song), comprised of three genres (lullaby, folk/traditional, and classical), two modes (major-minor), and two countries (Iran and Finland) were presented to the participants. These three kinds of music were chosen to be different in two modes, major and minor, but not too different in timbre, rhythm, the instruments and alike.

TABLE 2. The list of music from two countries, Iran and Finland, in two different modes, major and minor, in three different genres.

Music	Mode	Country	Music Name of the song
Lullabies	Major	Iran	Gole Laleh (Tulip)
		Finland	Oravan pesä [7] (A squirrel's nest)
	Minor	Iran	Gonjeshk lala (Sparrow sleep!)
		Finland	Lapin äidin kehtolaulu[8] (Lapp maternal lullaby)
Folk or Traditional music	Major	Iran	Baroon baroone (It's rainy)
		Finland	Isontalon Antti ja Rannanjärvi[9]
	Minor	Iran	Jane Maryam (Dear Maryam)
		Finland	Kullan ylistys[10] (Worship of gold)
Classical	Major	Iran	Bizhan and Manizheh suite (III Allegro grazioso) (Composed by Hossein Dehlavi)
		Finland	Musette (Composed by Jean Sibelius)
	Minor	Iran	Dance of dayereh (Persian Picture symphony- Composed by HeshmatSanjari)
		Finland	Symphony No.6 in D minor op 104 (Composed by Jean Sibelius)

[7] https://www.youtube.com/watch?v=odJZFJt_u3c
[8] https://www.youtube.com/watch?v=YoafITpr3jA
[9] http://www.suomeasavelin.net/laulunsanat/isontalonantti.htm
[10] http://www.suomeasavelin.net/laulunsanat/minunkultanikaunison.htm

When choosing the music, the following aspects were considered: the song and music had to be fairly similar not only from the point of view of rhythm and melody but also from the point of view of popularity. This process had to be done very carefully because the data would be gathered based on those excerpts and the chosen pieces of music from both nations should have an equal role and popular status due to that. It meant that, if one of the Iranian songs in one certain genre and mode was familiar and popular in this culture in general, then the Finnish song had to be familiar in the same genre and mode. This was done by asking about a dozen randomly chosen persons in each country who knew about this kind of music.

3.3 Materials and Equipment

The main equipment for the testing was a laptop and high quality headphones for the participants, as well as one assistant for the children but not for their mothers. To help the children relax, the testing was done in a comfortable place for the participants, however, not in their homes. The researcher or the research assistant sat beside those young children who maybe could not use a computer well enough and controlled the proceedings. To avoid any conscious or unconscious interfering by the helpers, the participant was asked to listen to the music while using good quality headsets.

Before listening to the music excerpts, each participant answered some questions about their personal and musical background, in the form of one paper questionnaire, which had eleven questions for the children and twelve questions for the mothers. The children's questions concerned for instance their age, gender, musical training (instrumental or singing), background in listening to music, music preferences and so on. On the other hand, the mothers' questions included for example their age, liking or disliking music, music preferences and so on (see appendix 1). This was the first questionnaire used in the research. After listening to each piece of music, they were asked some questions about the music they had just heard, in their second questionnaire containing faces.

In the previous research which was inspiring for the current study, Kastner and Crowder (1990) used the faces that are shown in FIGURE 3. These schematic faces include the concept of gender, which may have affected the participant's decisions.

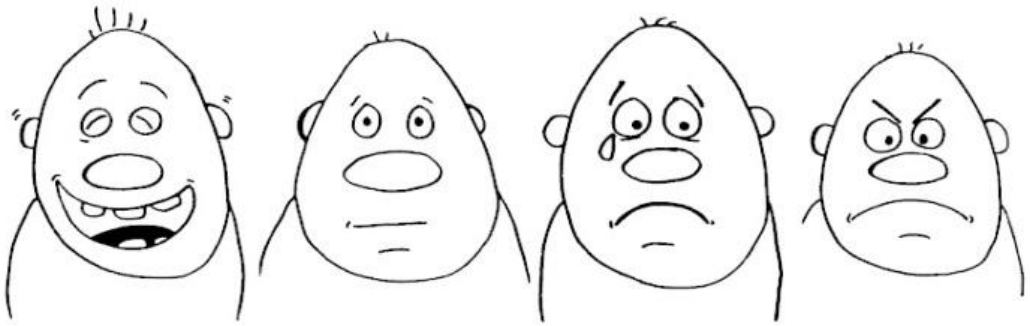


FIGURE 3: Four emotional schematic faces, which were used in Kastner's and Crowder's (1990) research.

Then, for the present research, it was decided to change these faces into the following ones without any personality and gender (FIGURE 4). These emotional schematic faces were described to the participants as being happy, relaxed and calm, sad or a bored and tragic feeling, which made him/her want to cry, so the first two showed a positive emotion and the two others a negative emotion.

FIGURE 4: Four emotional schematic faces, which were designed based on the previous research by Kastner, M.P. and Crowder, R.G., (1990).

In addition to this question, there were more questions which asked if the participants liked or disliked the piece and whether the music was familiar. An important part of the testing equipment was a simple and user-friendly DAW software program for recording the mothers' lullabies. 'Audacity' was chosen in this case because it turned out to be very easy to use, both for the mothers and the researcher.

3.4 Procedure

When one studies young children, it is obvious that the methods used have to be simple and fairly short. This may also be necessary for the mothers. In addition, in order to consider the ethical issues in the research (especially because children have participated), the researcher prepared a form and application for getting consent from the children's parents and local authorities. The form "Consent for participation in survey study" (appendix 9 in English version and the second form (9.1.2)), was prepared for obtaining parental consent regarding their children participating in the research; furthermore, permission from Early childhood services of Jyväskylä (varhaiskasvatuspalvelut, Jyväskylän kaupunki) in Finland was sought and two permission from institute managers in Isfahan, Iran were issued. Moreover, children were asked verbally if they wished to participate in the research or not. It was explained to the children that they were able to withdraw from the research at any time should they wish to do so.

After getting the permissions and participants' consent, preparing sufficient questions about the subjects' musical background and preferences and finding suitable music excerpts, both questionnaires had to be tested. Then, 'Max software' for the data gathering process was chosen at first. In that way it was possible to collect the data in 'Excel software' automatically, and then use the t-test, the chi-square and the correlation for analyzing and getting results more easily. In addition, it was thought that by using a computer and making the questionnaires in a fun way and like a computer game, the children would be entertained and interested in continuing the process until the end. One more positive aspect was that it reduced the researcher's or assistant's influence on the children's answers.

An initial version of the computer questionnaire was created by Dr. Marc Thompson and it became clear that it would be impossible for a five-year-old child to use the program easily and without help. Furthermore, they would need the assistant's aid. An online questionnaire for this research might have made it easier to have more participants and thus the results could have been more precise. However, after evaluating the conditions more exactly, it was felt that an online questionnaire would create difficulties during the process, especially in Iran with a low speed Internet. In addition, the conditions could not have been

controlled. For instance, the parents of the child could influence the child's answers unintentionally. Finally, it was decided that paper questionnaires should be used, but in order to play the twelve pieces of music, one simple PowerPoint file was prepared.

The children and their mothers were tested separately. The place had to be one where they felt more relaxed and where the new environment did not distract their concentration, especially the children's who may lose their focus very easily. The first questionnaires for the mothers and the children seemed to be different (because it should be understandable for not only the adults but also the children) but in fact they followed the same aim. The questionnaires were in three languages, written in English and then translated into Farsi and Finnish. The translations were checked by four specialists (a Finnish teacher of English and a Finnish psychologist plus an Iranian teacher of English and an Iranian psychologist) The English version of the questionnaires was edited several times by my English supervisor, Dr. Geoff Luck, to prevent any kind of mistakes before translating it into Farsi and Finnish.

As the researcher was from Iran, a Finnish assistant was needed to help in the testing process of the young Finnish participants. The assistant was informed how the process would be and how to control the variables and the experiment process as much as possible. She got to know how she should ask questions or even react to the children to encourage them to answer the questions. However, she had to abstain so as not to bias the young participants. Since many young children were either illiterate or not able to use the computer, in Iran the researcher helped the children to fill in their questionnaires and in Finland the Finnish assistant did it. The chosen answers were ticked but also any oral answers they made were written down in their own words. However, in both countries mothers did not need any help in the tests. It was enough for them to get an explanation by the researcher and then they were let alone to go through the forms. All the Finnish mothers in the research were able to understand English, however, if they had not been able to, the Finnish assistant would have explained the forms and tests to them.

After that, music was played back to them through the headset. The twelve music excerpts were played in a random order. They were randomized by using a 'Research

Randomizer' webpage[11]. The music excerpts were stored in one PowerPoint file which had been organized by using randomized numbers before performing each test. After listening to each piece of music, the participant had to answer the simple questions in relation to the music which they had heard (see appendix 1). The questionnaires were printed on a separate piece of paper for each participant. The participants were also able to add any comment or idea after each question. The researcher used the PowerPoint software for playing the music, because involving computers made the test more attractive for the children so that they stayed focused on the music and did not get bored.

Before starting the music listening part of the experiment, participants were informed about the process and they were given examples in advance. For making children more enthusiastic to concentrate and follow the process until the end, it was promised that they would get one present at the end.

Recording the mothers' voices and their lullabies proved to be interesting. Although some of them did not like to sing and refused to do this part, many of them sang their usual lullabies and even their own lullabies, which they had been used to singing for their children until the children got to be four years old or even older until the present moment. The mothers had been singing them either every night or occasionally. The recorded mothers' lullabies were going to be needed in order to assess the modes, the perceived emotion and words of the used lullaby and looking for any relation between them and the children's music preferences or their perception of musical emotion. The recording process was also done with high quality headsets and by using Audacity software. It became necessary to create a third short questionnaire for the mothers as not all the children seemed to have understood their questions properly. For instance, there was a child who believed that he is proficient in piano playing, however his mother said that he has started to learn piano just for two months!

After this process, the children got their presents and before the participants left the place, all the questionnaires were checked quickly to ensure that the participants had

[11] Research Randomizer webpage (Retrieved August 6, 2015): http://www.randomizer.org/form.htm

answered all the questions. Then the order of excerpts in the PowerPoint files was again changed according to a new random number and prepared for the next mother-child couple.

As a final point, my assistant translated all the Finnish answers into English and the Iranians' answers were translated from Farsi into English by the researcher as well. Then, the answers were entered in one Excel file, also in two separated files, one for Iranian participants and one for Finnish ones.

4 RESULTS

It was hypothesized that the culture and the lullabies can affect the musical perception of emotion in different modes and music mode preferences. To ensure that, the collected data from the experiment were analyzed by the SPSS software and by using different statistical methods such as the Chi-square, the Correlation, the Spearman correlation and the Kruskal Wallis test. Choosing the method was based on the type of variables, whether they were ordinal or nominal ones. The Chi-square test was chosen if there was either just one nominal variable for a nonparametric test (the number of ordinal ones should be more than one) or only more than two nominal variables. The Spearman correlation was chosen for two ordinal variables. If we had both nominal and ordinal variables for nonparametric tests, we were able to use the Kruskal-Wallis.

As it was shown in table 1, the first questionnaire gave us the general information about the participants and their musical background. It demonstrated that the children's music appreciation in both countries, Iran and Finland, was equal and about 75% of them from each country liked music. In addition, 67% of the Iranian children and Finnish ones, each group, had musical skills and the rest were listeners. More than half of the children in each country enjoyed happy and energetic songs and less than 15% of them liked music in the slow tempo. One interesting difference of the children in these two countries was their difference in having listener partners. The Iranian children preferred to listen to music in groups whereas the Finnish ones preferred to do this activity alone.

However, the children's results from those countries showed many similarities, for the mothers there were many differences between the Iranians and the Finns in the results. Only 15% of the Finnish mothers had no musical skills whereas almost more than half of the Iranian ones lacked these skills. They were also different in the amount of listening to music, which was less than two hours for about 65% of the Iranian mothers and more than 2 hours for the same percentage of the Finnish ones. On the other hand, they both had some similarities such as singing lullabies for their children or that the music style which they did not like was mainly Heavy Metal (for more information, see Table 1). The data from the second questionnaire also illustrated many interesting results which will be explained in this section.

4.1 Emotion and music mode

4.1.1 The results from the children's questionnaires

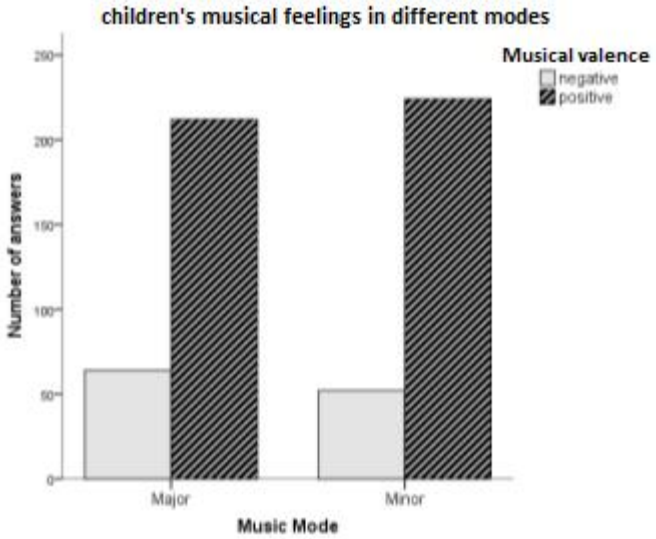


FIGURE 5: The relationship of the children's feelings in two different music modes, major and minor.

The value of the Chi-square ($\chi 2$) with the degrees of freedom (df) = 1, was performed to compare the frequency of the children's music valence in the major and the minor modes (N=552). The independent variable here was musical modes (major= 1 and minor= 2) and the dependent variable was the valence of music (negative= 0 and positive= 1). Overall, children tended to feel positive while listening to music regardless of whether it was in the major or the minor mode (Figure 5). However, the results showed that this positivity in the minor mode (81%) was just 4% more than the major mode (77%), which was not a big gap. Then we cannot conclude that children felt more positive by listening to the minor music than the major one, $\chi 2(df=1) = 1.57$, $\rho= 0.21$. So, no relationship was found between the musical modes and whether the children felt positive or negative regardless of their nationalities, because significance level (ρ) in this test is more than 0.05.

4.1.2 Musical valence of different modes of Iranian and Finnish children

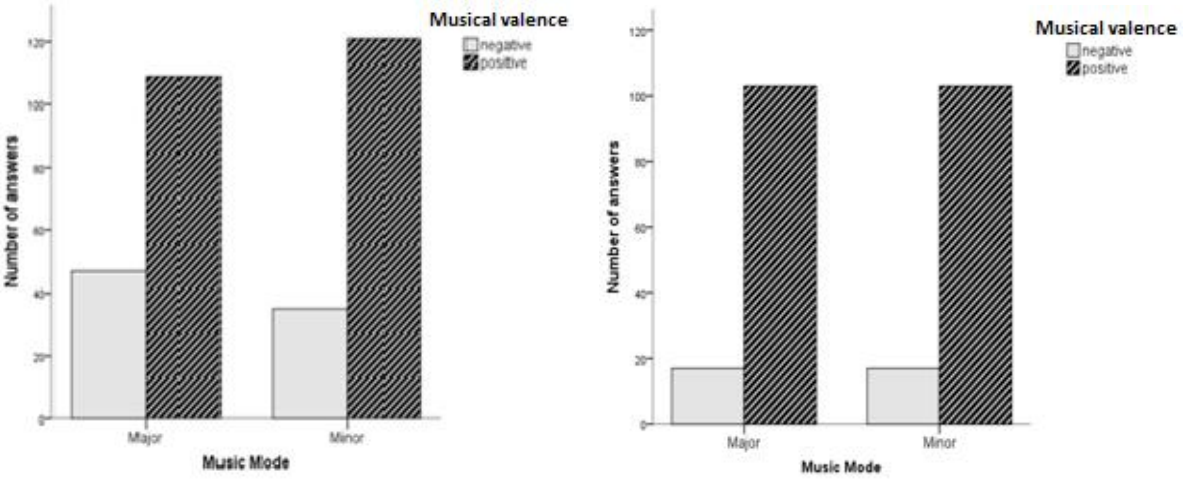


FIGURE 6: Iranian children's musical feeling (left) in two modes versus that of the Finnish children (right).

In these two graphs (Figure 6), the Chi-square test calculated the frequency of the children' musical valence (negative= 0 and positive= 1) in two modes (major= 1 and minor= 2), by considering their nationalities (Iran= 1 and Finland= 2). The results demonstrated that the nationality of children created a significance level of difference in the positivity or negativity of their perception of emotion in music. In the major mode music excerpts, the Iranians showed 70% of positive valence, however in the minor they showed 77.6% of that. For the Finns, their positive emotion in both modes was the same (85.8%). Therefore, there was a strong significance level for the major mode in different cultures: $\chi^2(1) = 9.70$, $\rho < 0.05$, which was not strong enough in the minor one: $\chi^2(1) = 3.03$, $\rho = 0.08$.

The effect of mode on the Iranian children's musical valences was statistically significant and this effect on the Finnish ones' was not different at all. Therefore, the children in Iran had more positive feelings when they listened to the minor mode than when they listened to the major mode, whereas it was not that different for the young Finnish participants.

4.1.3 The results from the mothers' questionnaires

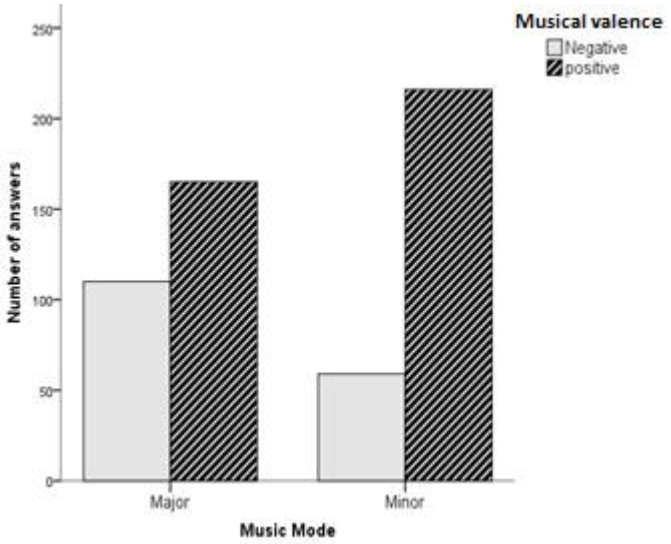


FIGURE 7: The relationship of the mothers' feelings in two music modes.

In this research not only the children but also the mothers participated for two reasons. First, for finding any relationship between their musical features and second, in order to consider them as an adult group and compare them with the young participants (considering the age factor).

In this part, the mothers' perception of emotion in music was analyzed. Overall, the mothers (N=550) tended to feel positive when the music, regardless of its mode, was presented to them but they felt particularly positive when listening to music in the minor key (78.5%) versus the major one (60.0%) (Figure 7). The Chi-square results in this part showed strongly significant relationship as it is shown here: $\chi^2(1) = 22.21$, $\rho < 0.05$. (For more information about the Chi-square tables, see Appendix 3, Figure 13)

4.1.4 The mothers' musical valence of different modes in Iran and Finland

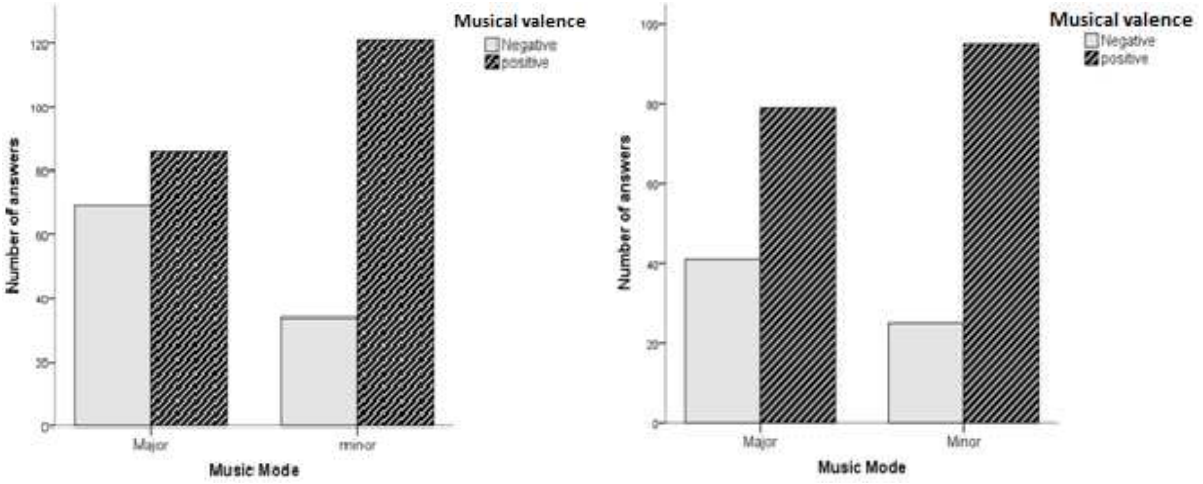


FIGURE 8: Iranian mothers' (left) musical feelings in two modes, major and minor, versus the Finnish mothers (right).

On the other hand, by taking nationality into consideration, more clear and precise results were found. From analyzing the Iranian mothers' (N=310) results, we found out that they felt positive on a significance level when listening to the minor mode, $\chi^2(1) = 17.81$, $\rho < 0.05$. So, the relationship between music in the minor key and the positive emotions was far stronger for the Iranian mothers. In the other hand, the Finnish mothers (N= 240) had a statistically significance level of positive feeling when listening to music in the minor mode than to the major one, as well: $\chi^2(1) = 5.35$, $\rho < 0.05$). However that positivity for the Iranian mothers in the minor mode (78%) in comparison to the major one (55.5%) is more than for the Finnish mothers whose positivity for the minor mode was 79% compared to the major one (66%). Overall, results in these two countries showed that there was a significant association of the positive valence for adults when listening to the minor mode than to the major one, however in Iran, the validity of this significance level was higher than in Finland (Iran: $\rho= 0.000$, Finland: $\rho= 0.021$) (Figure 8).

4.1.5 The similarity between mother and child in the musical valence of two modes

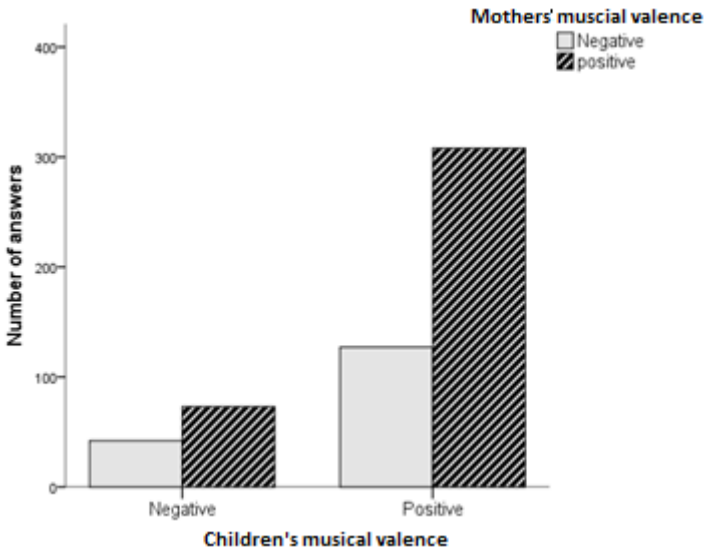


FIGURE 9: The relationship between mothers and children's musical valence in general (without considering nationality)

When analyzing the similarities between the mothers and their children without considering the countries, the correlation method was used. It showed $\rho = 0.08$ which was bigger than 0.05, i.e. the difference was very small. It could be due to the fact that the number of participants was not very large and this could make the results somewhat unreliable. Then there would be no statistically significant relationship between the ratings of the perceived emotions of the children and their mothers, but there might be a tendency for the ratings to be related. This would mean that in both groups they would feel positive more than negative about the same songs, however the difference does not seem to be significant (Figure 9).

4.1.6 The similarity between the mother and child in the musical valence of the two modes in the two cultures

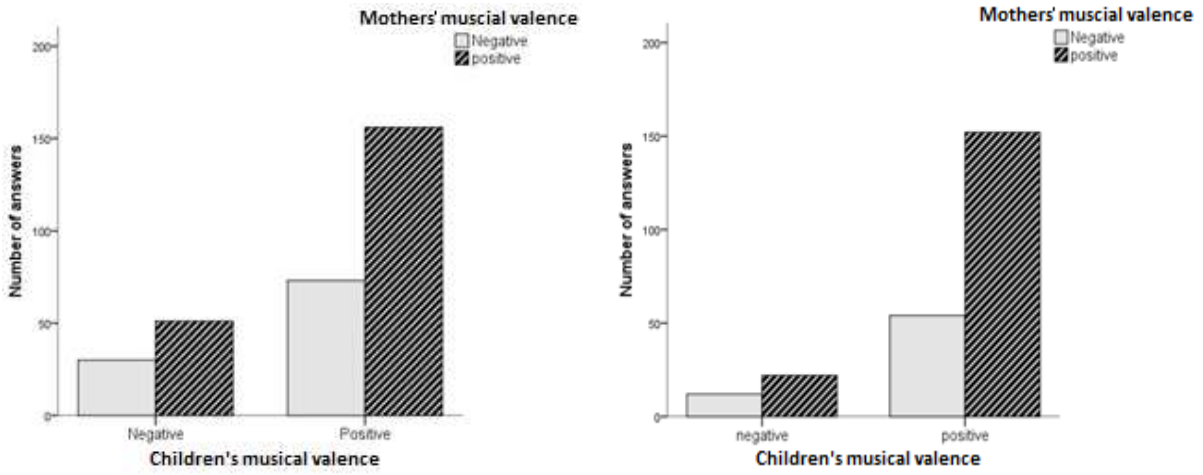


FIGURE 10: The similarity of the Iranian mothers and children's music feeling (left) versus the Finns (right).

On the basis of the results, in Iran, the relationship between the children's positive valence (N=310) and the mothers' one was 68% versus the relationship between the Finnish participants (N=240) was 74%. In Iran, the Chi-square test showed $\chi^2(1) = 0.71$, $\rho = 0.397$, which was not significant. From the results in Finland, it was clear that the Chi-square was $\chi^2(1) = 1.2$, $\rho = 0.272$, which was not significant either.

The results clearly showed (Figure 10) that in these two countries there was no significant relationship and similarities between the mothers and their children's musical valence for the different modes whereas in Finland the relationship between them was stronger. The reason of this fact could be many different things such as that the mothers were familiar with the music and had memories of it which did not exist for the children because of the fact that they were too young and might prefer other music styles. It can support the fact that the association between mode and emotion is acquired and can be changed during the time.

4.2 Music preferences

4.2.1 The children's music mode preference

Since we had one nominal (mode) and one ordinal (music liking attitude) variable for getting results and analyzing the data, the Kruskal-Wallis test was the best choice as it deployed the chi-square and was used for nonparametric analyzing of the data (Table 3). The results showed that there was no significant relationship between the music modes and the children's music mode preferences ($H(1)= 2.379$, $\rho > 0.05$). Nevertheless, the rank table showed the mean rank of 266 for the children who liked the major mode and 287 for those who liked the minor one. Anyway, the significance level showed that there was no relationship between the children and their preferences in the different modes.

TABLE 3. The children's music mode preference in different modes

Test Statistics[a,b]	
Music liking/disliking of children	
Chi-Square	2.378
Df	1
Asymp. Sig.	**.123**

a. Kruskal Wallis Test
b. Grouping Variable: Music Mode

4.2.2 The role of nationality in music mode preferences

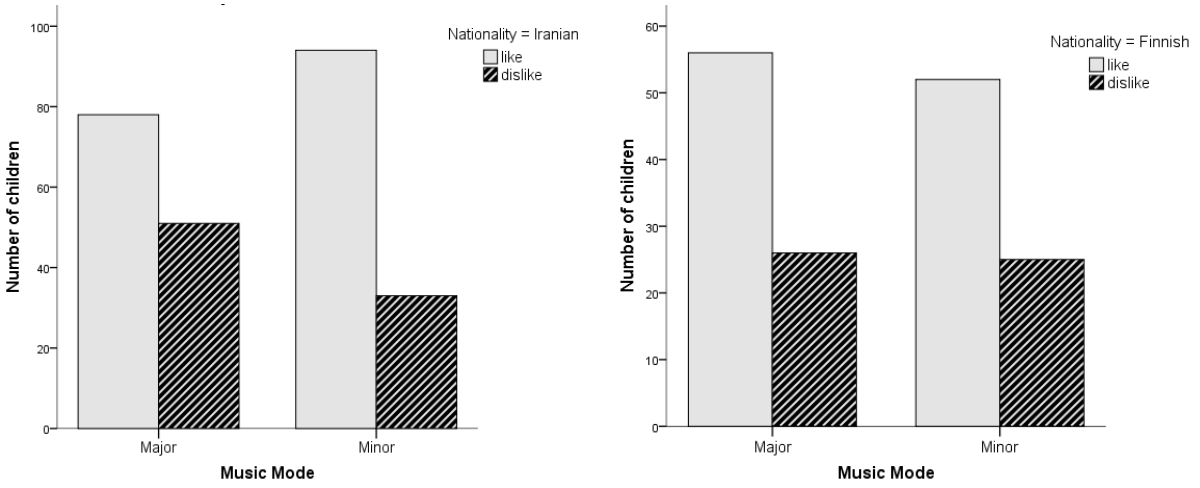


FIGURE 11: The Iranian children's music mode preferences (left) versus the Finns' (right).

When the preferences of the musical modes of the Iranian children (N=312) is concerned, the results were as demonstrated: $\chi^2(1) = 5.33$, $\rho < 0.05$ and it was significant. The Iranian children's music appreciation for music in the major made was 40% and for the music in the minor mode was 61%. The minor mode preference was 43.5% for the Finnish children (N=240) (which was not significant in the Chi-square result: $\chi^2(1) = 0.01$, $\rho = 0.9$).

As the bar graphs (Figure 11) illustrate, there were significant differences for mode preferences based on nationality. The Iranian children noticeably preferred to listen to the minor mode and the significance level showed the association between them and their musical mode preferences whereas the Finnish children had no mode preferences in music listening. Thus, the nationality and culture could have a deep effect on the preferences of the musical mode in children.

4.2.3 Mothers' music mode preferences as a different generation

TABLE 4. Mothers' music mode preferences in different modes

Test Statistics[a,b]	
Liking/Disliking Music	
Chi-Square	19.311
Df	1
Asymp. Sig.	**.000**

a. Kruskal Wallis Test
b. Grouping Variable: Music Mode

The results illustrated (Table 4) that there was a statistically significance level in the mothers' music mode preferences and that they preferred the minor mode as opposed to the major one, H(1)=19.31 ρ= .000, with a mean rank preference of 305 for the minor key and 247 for the major one. Therefore, the mothers, regardless of nationality, liked the minor mode more than the major one, however, children in the same situation did not have any significance level of preferences for a different musical mode.

4.2.4 The role of nationality in the mother's musical mode preferences

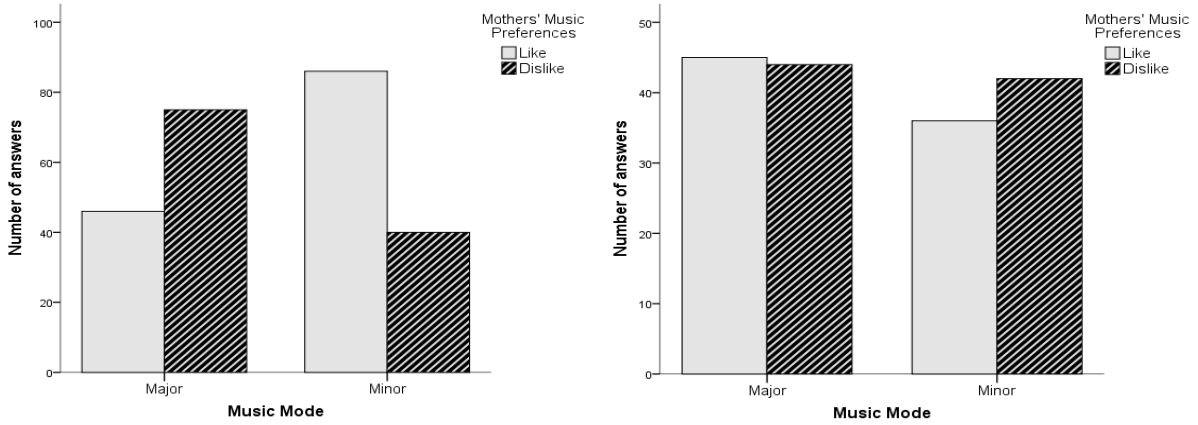


Figure 12: The Iranian mothers' musical mode preferences (left) versus the Finns' (right).

For the mode preferences of the Iranian mothers (N=247), the results were as follows: $\chi^2(1) = 22.68$, $\rho < 0.05$, which was strongly significant. For the mode preferences of the Finnish mothers (N=167), the results illustrated the following feature: $\chi^2(1) = 0.32$, $\rho = 0.570$ which was not significant. As the results demonstrate, there were significant differences for the mode preferences regarding to the different nationalities (Figure 12). The Iranian mothers clearly preferred to listen to the minor mode (68%) versus the major one (38%) whereas the

Finnish mothers had no mode preferences in music listening (46% liking the minor mode versus 50.6% liking the major one, which was almost equal).

4.2.5 The relationship between the mothers and the children in music mode preferences

TABLE 5. The relationship between the mothers and the children in music mode preferences

Correlations				
			Mothers' music preferences	Children's music preferences
Spearman's rho	Mothers' music preferences	Correlation Coefficient	1.000	.149**
		Sig. (2-tailed)	.	**.000**
		N	552	552
	Children's music preferences	Correlation Coefficient	.149**	1.000
		Sig. (2-tailed)	**.000**	.
		N	552	552

**. Correlation is significant at the 0.01 level (2-tailed).

For this part, the Spearman correlation (r_s) was used because of the data type (Table 5). There were two ordinal variables, the children's music mode preferences and the mothers' ones (N=552) (liking or disliking). The results showed r_s =15, $\rho < 0.01$, which demonstrated that the mothers' musical mode preferences and the children's ones were similar in the significance level and they had a strong relationship. Therefore, their musical mode preferences were similar although the mothers' musical valence was not similar to that of what their own children is showed.

4.2.6 The preferences of the mode of music between the mothers and the children in the two nationalities

As the results illustrated for each nationality, there was a strong correlation between the Iranian mothers' musical mode preferences and their children's ones (r_s=19.5, $\rho < 0.01$) but that was not significant between the Finnish ones (r_s=6, $\rho > 0.01$), which showed the role of the nationality in forming relationships between the mother's musical mode preferences and her child's.

4.3 The familiarity of the music

4.3.1 The children's musical preferences and familiar music

TABLE 6. The children's preferences in listening to familiar music

Correlations				
			Children's musical preferences	The familiarity of music in children
Spearman's rho	Children's musical preferences	Correlation Coefficient	1.000	.287**
		Sig. (2-tailed)	.	**.000**
		N	552	552
	The familiarity of music in children	Correlation Coefficient	.287**	1.000
		Sig. (2-tailed)	**.000**	.
		N	552	552

**. Correlation is significant at the 0.01 level (2-tailed).

Since we had two ordinal columns in this part, which were preferences and the familiarity of the songs, we had to use a correlation method (Bivarita) and the Spearman test (Table 6). The result showed $r_s = 29$, $\rho < 0.01$, which meant that the children's familiarity with the music could affect their musical preferences which turned out to be statistically significant, meaning that children preferred to listen to familiar music more than to unfamiliar music.

4.3.2 The role of nationality in preferring familiar music found in children

The Spearman test was performed and as the results showed, for the Iranian children there was a significance level in preferring to listen to familiar music ($r_s = 35$, $\rho < 0.01$): they preferred to listen to this kind of music rather than to unfamiliar music. However, for the Finnish children there was no significant relationship ($r_s = 13$, $\rho=0.104$) in their music preferences to listen to either a familiar or an unfamiliar song. Comparing the results here shows that growing up in different nationalities could play an important role in the children's preferences to listen to familiar songs or unfamiliar ones. Children in the Finnish children might be ready to listen to unfamiliar songs as much as to familiar ones whereas the Iranian children might not accept to listen to unfamiliar songs that easily.

4.3.3 The mothers' music preferences and familiar music

Since we had two ordinal data groups, which were liking a certain kind of music and the familiarity of that music, using a correlation method (Bivarita) and specifically the Spearman test was the proper analyzing method to use for the group consisting of the mothers. After analyzing the data, the results showed r_s= 47, $\rho < 0.01$, which meant that the mothers' familiarity with the music could affect their musical preferences in a significance level (Table 7). Therefore, the mothers also preferred to listen to familiar music, as the same as the children.

TABLE 7. The mothers' musical preferences in listening to familiar music

Correlations				
			The mothers' music preferences	The familiarity of the music for the mothers
Spearman's rho	The mothers' music preferences	Correlation Coefficient	1.000	.468**
		Sig. (2-tailed)	.	**.000**
		N	er552	552
	The familiarity of the music for the mothers	Correlation Coefficient	.468**	1.000
		Sig. (2-tailed)	**.000**	.
		N	552	552

**. Correlation is significant at the 0.01 level (2-tailed).

4.3.4 The role of nationality in preferring familiar music: mothers

The results in the Spearman correlation method demonstrated that the Iranian mothers preferred to listen to familiar music, which was statistically significant (r_s = 63, $\rho < 0.01$). They clearly preferred to listen to familiar music rather than unfamiliar music.

In addition, the results for the Finnish mothers showed that there was a significant relationship between the Finnish mothers' music preferences and listening to familiar songs (r = 27, $\rho < 0.01$), as well the Iranian mothers.

Therefore, the factor of nationality of the mothers from different countries did not have any effect on their musical preferences in listening to familiar music or unfamiliar music. Both groups clearly preferred to listen to familiar music.

4.3.5 The relationship between the mothers and the children concerning the familiarity of music

The table below (Table 8) demonstrates that there was a strong relationship between the mothers and their children in liking music which was familiar to them rather than liking unfamiliar music ($r_s = 27$, $\rho < 0.01$).

Therefore, not only in the music mode preferences but also in the musical preferences and the familiarity of music, there was a deep relationship between the mothers and their children.

TABLE 8. The relationship between the mothers' and the children's preferences in listening to familiar music

Correlations

			The familiarity of music (the children)	The familiarity of music (the mothers)
Spearman's rho	Music familiarity of music (the children)	Correlation Coefficient	1.000	.271**
		Sig. (2-tailed)	.	**.000**
		N	530	470
	The familiarity of music (the mothers)	Correlation Coefficient	.271**	1.000
		Sig. (2-tailed)	**.000**	.
		N	470	490

**. Correlation is significant at the 0.01 level (2-tailed).

4.3.6 Preferences for familiar music by the mothers and their children concerning the different nationalities

As the results illustrated in the Spearman tables, the Iranian children and their mothers' liking a various piece of music was based on the familiarity of the music, and it had a strong relationship ($r_s = 36$, $\rho < 0.01$). It was not the same for the Finnish mothers and their children ($r_s = 4$, $\rho=0.62$). It seems that liking or disliking familiar or unfamiliar music could be different in different nationalities.

4.4 The Finnish and Iranian mothers' recorded lullabies

One part of the research process was that the mothers were requested to sing those lullabies which they had usually been singing for their children who participated in the research. Some of them did not like to share their songs with the researcher and some others sang several songs. The interesting results I collected from their lullabies were:

The Finnish mothers preferred to sing some famous Finnish or international songs rather than any which they themselves had provided the words for. One of them claimed that she always sang the lullabies which she herself wrote the poems and composed the melody for, but she did not like to share them with the researcher. Except for that mother, the rest of the Finnish mothers sang the usual Finnish lullabies or some songs from the famous children's cartoons made by Walt Disney Company. Overall, the Finnish mothers sang 34 short or long songs and 21 of them were sung in the minor mode and 13 of them in the major key. The three songs which were repeated more than the rest were:

The "Nukku-matti[12]" song in the minor mode was sung 8 times and it is about a creature like the sandman and his blue dreams who tries to make children sleep.

The "Oravan pesä[13]" song in the major mode, was sung 4 times and it is about a little squirrel and its nest in the forest.

The "Tuu tuu tupakkarulla[14]" song in the minor mode was sung 2 times and is about a baby who is swaddled like an expensive additive material in the cigarette roll, sleeps inside a cart and going through Häme Oxen Road, an existing road between Turku and Hämeenlinna that was one of the main roads in the Middle Ages in Finland. Finally, in this lullaby it hopes sweet dreams for all little children in Finland.

---

[12] Tero Koskinen (2011, January), *Laura Närhi Sininen uni (Blue dream)*, Retrieved August.2015: https://www.youtube.com/watch?v=8O691H93BAw

[13] Irma Tapio (2014, November), *Oravan Pesä*, Retrieved August 2015: https://www.youtube.com/watch?v=toyx0-yVUQs

[14] SatuSopanenAndTuttiorkesteri (2014, November), *Tuu Tuu Tupakkarulla,* Retrieved August 2015: https://www.youtube.com/watch?v=5rmoZf-5Tz8

On the other hand, Iranian mothers sang 22 lullabies mostly in the minor mode. Nineteen of the lullabies were in the minor mode and 3 of them were in the major one. Most of them preferred to sing the lullabies which they had created the words themselves. In their lullabies the child's name was usually called by the mother and the song was directly about them. The song which was repeated more than the rest was "Gonjeshk lala[15]" in the minor mode and was sung seven times.

Some of them also sang a famous song (for the researcher and many Iranians) which was again in the minor mode and through that the mother compared her child to different kinds of flowers and, based on words that rhyme that with the flowers, she continued her song. The mothers who sang this song, sang it to their own words. Unfortunately, there seemed to be no Internet link for this lullaby.

It became clear that the Iranian mothers were more interested in singing lullabies in the minor mode and in their own words than the Finnish mothers. Maybe it clarifies the differences of Finnish and Iranian children's perception of emotion in different modes of music: the Iranian children felt positive while listening to the minor mode and they preferred to listen to songs in it, but the Finnish children had no clear negative/positive musical valences and preferences for the minor mode, however they tended to like the major key more.

[15] Ghaffarim (2008, Jun), *Gonjeshk Lala,* Retrieved August 2015: https://www.youtube.com/watch?v=K9PzXtnplh4

5 DISCUSSION

Analyzing the results demonstrates that even though there seems to be no significant correlation in the relationship between children's musical valence and the two different modes, there was a significant difference when their nationality was taken into account. The Iranian children experienced positive feelings (happy and relaxed) by listening to music in the minor key, but this could not be said about the Finnish children. Similarly, the mothers felt strong positive emotions while listening to music in the minor mode in general. Moreover, the Iranian mothers demonstrated even stronger positive emotions when they listened to the minor mode. Still, this does not mean that there was a significant relationship between the children and mothers' music perception of emotion in the two modes. It must be mentioned that for both groups, the mothers and the children, without considering the nationality, there was a tendency of feeling positive when listening to minor music. The tendency of relationship between mothers and children in the musical valence of the minor and the major keys increased in the same way for each mode; however, in Finland there was a stronger relationship between the mothers and the children's perception of emotion in different modes.

This result become more interesting when the mode of mothers' lullabies is taken into consideration as a factor which affects the children's perception of emotion in music. It seems that most of the Iranian recorded lullabies are in the minor mode which might encourage Iranian children to feel positive valence when listening to minor music. However, Finnish recorded lullabies, which were sung with Finnish mothers in this research, do not have any tendency to the specific mode, as well as Finnish children's musical valence that has no clear tendency to the specific mode.

This study also examined the music mode preferences of the children and the mothers (with and without considering their nationality) and their preferences relationship have also been taken into account in this research. The results illustrate that children's music mode preferences, regardless of their nationality were not significant, although they tended to prefer the minor mode. If we separate the participants' data according to their nationality, it appears that the Iranian children preferred the minor mode and the Finns tended to prefer the major key. On the mothers' side, regardless of their nationality, they tended to prefer the minor mode and the statistical result shows that it was significant. Taking into account their

nationality, it appears that the Iranian mothers preferred the minor mode and it was statistically significant, while the Finns just tended to prefer the minor mode but it was not significant.

Without adding the nationality variable, it seems that there was a noticeable correlation between the music mode preferences of the children and their mothers. However, in the case of the Iranian mothers and children, the similarity in music mode preference was significant in a high value. This part of the research clarifies that not only the Iranian mothers and children, but also the Finnish mothers and children preferred to listen to the same mode, however this was significant in the Iranians in a higher value. This could be due to the more closed borders of Iran whereas in Finland different cultures can be accessed, especially Western culture, in which (on the basis of the research from Kastner (1990) and Nawrot (2003)) both children and mothers preferred to listen to the major music rather than to music in the minor mode. In Iran, at least in childhood, children had a stronger affiliation with their mothers when it comes to musical preferences. However, the current study claims that it was not the same for the perception of emotion in music. The results from this part also illustrate how culture can affect the musical mode tastes of people in different countries. As a result, this study seems to confirm the previous studies which demonstrated that there is correlation between mother-child musical preferences (Campbell, 2000; Thompson, 2009; Soley & Hannon, 2010; Walworth, 2009; Einarson, Corrigal & Trainor, 2012; Morgan, Kilough & Thompson, 2013; Egerman, Chuen & Macadams, 2012).

The fact that children prefer to listen to familiar music, mentioned before in many studies (e.g. Soley & Hannon, 2012), it was also proved to be true in this research. It was especially true for Iran. The result, not only for Iranian children but also for Iranian mothers strongly shows that listening to familiar music was preferable and statistically significant for these two groups. For the Finnish mothers also the result shows the preference of listening to familiar music, however, for the Finnish children it did not show the same trend. On the basis of the graph in this case, we can understand that there were no preference differences in many Finnish children when they listened to either familiar music or unfamiliar music. They were interested in both musical modes. Therefore, the result here again shows the role of nationality and culture in preferring to listen to familiar music rather than unfamiliar music.

As mentioned before, another interesting result from this research is the similarity between the varieties of modes of the lullabies sung by mothers and their children's perception of emotion in music. As was demonstrated in this research, in Finland the mothers used the minor mode more than the major one, however, the amount using those two modes was not that different. Thus, the children in Finland were more interested in listening to the major mode than Iranian children who have listened to more lullabies in the minor mode. This shows that in Finland the culture and preferences of listening is gradually changing and because of that, the new generation is different from the previous one (the children as a new generation and their mothers as the previous generation).

One very important difference between society in Iran and Finland is the role of women in these two countries. It seems that Finland is going to change into almost a "matriarchal" society very soon and is a more developed country whereas Iran is a patriarchal and developing one with many religious rules, which limit a women's role in society, especially limit their singing in public. Today, however, there is a new generation of Iranian mothers who are educated to a higher degree and want to have a social role outside the home. We cannot ignore the fact that the Iranian society is still family-oriented with traditional and religious features. This matter of fact can influence the context of the words in the Iranian mothers' lullabies. Many Finnish mothers come back home from their work late and tired and use some toys or recorded music in a Western style as lullabies for their children. They do not use Finnish toys and this tendency is also increasing in kindergartens, pre-schools and schools. In addition, Finland and the Finns are connected to other Western and European countries from an economic and cultural point of view. On the other hand, Iran is a developing Eastern country which is not so connected to other countries, especially to Western ones. These two different kinds of trends will gradually have an effect on the culture of the countries even if the music and lullabies of these two countries have almost the same atmosphere and features.

As mentioned previously, different methods of music education in these two countries can also influence the children's musical valence and music preferences. They grow up developing in two different systems, with different music styles. Therefore, it might affect

their musical mindset. Finland tends towards Western musical features whereas Iran remains close to its own musical features.

During the process of this research, there were some difficulties, limitations and problems. One of the most important ones was that it was hard to find the musical resources of the previous researches. It was also finding the name of music in Western researches (for instance, Kastner's) was impossible, although the researcher tried to connect to the authors. In addition, finding high quality lullabies in Iran was very difficult. Most of them were old and their recording quality was not high. Therefore, the only solution was increasing their quality by using DAWs such as ProTools or Audacity. Many difficulties were encountered during finding similar pieces of Iranian and Western music in terms of tempo, timbre, instrumentation and meter. There was a lot of variety in the music in these two countries and it was not that simple to choose the pieces, which would have had the minimum differences in tempo, timbre, meter, instrumentation and so on and that their main difference would be their modes, one in minor and one in major.

The accuracy of the translation of the questionnaires into the three languages was very essential in this research. This step was crucial and any wrong translation or transferring the concept in a wrong way could have made the whole process invalid and unreliable. So, to keep the questionnaire accurate, it was necessary to ask two psychologists and translators for each language to edit the questionnaires.

Although the researcher is familiar with the rules and people of Iran, it was difficult to find participants. First, schools asked for the research permission from the ministry of education of Iran, which was very difficult and bureaucratic. Then it was easier for the researcher to do the research in two institutes in Isfahan. It took about two months of work and advertising to get enough participants. In Finland, even though it was more difficult, not only finding the participants was hard but also arranging the proper time for three persons (the participant, the assistant and the researcher) was challenging.

Another problematic matter in this research process was the lack of research and reference in both Finland and Iran about lullabies and their structures. The research material

was mostly about their words and meaning, not about their modes, rhythm or any musical features, however, after a lot of search and effort, it was possible to find some proper ones.

The number of the participants, which was less than 30 in each country and in each group, was one of the most difficult problems, which definitely can influence the statistical results, specifically in quantitative research, where the number of participants is the important element. If there had been a chance to have more participants, the results might have been different and more precise and reliable.

For future cross-cultural studies like this one, it is definitely recommended that two researchers from each country work jointly from the outset. This would make many elements of the study much more manageable; for example it would ease the process of selecting the proper musical excerpts, translating the questionnaires and answers, as well as finding and communicating with the participants. It would also be easier to choose songs with equal cultural importance and popularity. The researcher would have needed the help of a Finnish colleague from the beginning; however, this problem was solved by asking for help from some good Finnish friends of the researcher who kindly supported the research.

Furthermore, if there had been more participants, the results would have been more reliable. The role of children's songs or lullabies in child development is not a negligible and unimportant topic. This research clearly illustrates that the mode of these songs can affect a child's perception of emotion in music, especially when they have been sung by their mothers, the most important person in early childhood. By investigating these kinds of topics, not only the composers can be better in their compositions for children, but also some hidden aspects of culture and its changes would become clear. All in all, culture is dynamic and is changing all the time. One of the most important responsibilities of researchers is finding these changes and thinking about the next step. What should mothers do to maintain their relationship with their children as good as possible? How can one control changes in the musical perception, valence and preferences in a way which would support the culture and the mother-child relationship? These are two questions which might be addressed in future research studies.

6 CONCLUSION

This study has demonstrated differences in the musical valence of modes and music mode preferences and also the familiarity of the music in two different nationalities and cultures, Iran and Finland. These topics have been investigated for two groups, mothers and their children, moreover, the relationship between them in the mentioned aspects. Unlike listeners of Western music (both children and adults), Eastern listeners in both groups feel more positive when listening to music in the minor key and they tend to favor this mode over the major mode in a high value. In a country like Iran, where collaboration and communication with other countries (especially those in the West) is less common, the results are statistically significant. In Finland, on the other hand, the results are not similar. Most likely, this difference is because of a stronger relationship of this country with other countries in the West and the exposure of its citizens to a variety of cultures and musical traditions. The study has also demonstrated that even though the Finnish adult group clearly feels more positive about the minor mode and prefers to listen to this mode (and their lullabies are mostly in the minor mode), Finnish children do not feel in the same way; moreover, they tend to listen to the major mode more than the minor one, which can be the result of various tonalities in recently chosen lullabies.

Notwithstanding the small number of participants in this particular study, it is clear that cultural and musical backgrounds can have a significant influence on the perception of music and musical preferences. More studies will likely be necessary in the future, and if they are designed and carried out with fewer obstacles, the results could be very promising in their ability to deepen our understanding of the role music plays in our society. This promise lies far beyond explaining certain sociological phenomena; it will have the potential of improving our methods of instruction and transforming some elements of early childhood education. At the same time, it will also have the potential of strengthening the intergenerational connections and expanding our understanding of our legacy in the context of various world cultures.

7 REFERENCES

Abrams, R. M., Griffiths, S. K., Huang, X., Sain, J., Langford, G. & Gerhardt, K. J. (1998). Fetal musicperception: The role of sound transmission, *Music Perception, 15*, 307–317.

Asplund, A., & Forstadius, A. (1989). Introduction. In *Unilintu: Sata suomalaista kehtolaulua* (p. 3). Hki: Suomalaisen kirjallisuuden seura.

Balkwill, L. L., & Thompson, W. F. (1999). A Cross-Cultural investigation of the perception of emotion in music: Psychological and cultural cues. *Music Perception*, *17*(1), 43-64.

Barley Jr, R. B. (2011). *Tonality and Modality in Finnish Folk Music*. UNION INSTITUTE AND UNIVERSITY.

Bridger, W. H. (1961). Sensory habituation and discrimination in the human neonate. *American Journal of Psychology, 117*, 991-996.

Bartlett, J.C., & Dowling, W.J. (1980). The recognition of transposed melodies: A key-distance effect. *Experimental Psychology Journal: Human Perception and Performance*, *6,* 501-515.

Campbell, D. (2000). *The Mozart Effect [R] for Children: Awakening Your Child's Mind, Health, and Creativity with Music*. HarperCollins Publishers, 10 East 53rd Street, New York, NY 10022; Web site: http://www. harpercollins. com (US, $25; Canada, $39.50)..

Castellano, M. A., Bharucha, J. J., & Krumhansl, C. L. (1984). Tonal hierarchies in the India. *Journal of Experimental Psychology: General, 113, 394-412.*

Chen-Hafteck, L. (1997). Music and language development in early childhood: Integrating past research in the two domains, *Early Child Development and Care*, *130*, 85–97.

Chilton Pearce, J., Retrieved (2014) from http://eric.ed.gov/?id=ED448934

Corridoni, J. M., Del Bimbo, A., & Pala, P. (1999). Image retrieval by color semantics. *Multimedia systems*, *7*(3), 175-183.

Cunningham, J.G, & Sterling, R. (1988). Developmental analysis in the understanding of affective meaning in music. *Motivation and Emotion, 12*, 399-413.

Dolgin, K. G., & Adelson, E. H. (1990). Age changes in the ability to interpret affect in sung and instrumentally-presented melodies. *Psychology of Music*,*18*(1), 87-98.

Dowling, W.J. (1982). Melodic information processing and its development. In D. Deutsch (Ed.), *The Psychology of Music* (pp.413-429). New York: Academic Press.

Eerola, T., Himberg T., Toiviainen P., & Louhivuori J. (2006). Perceived complexity of Western and African listeners. *Psychology of Music,34*(3), 337-371.

Egermann, H., Fernando, N., Chuen, L. & McAdams, S. (in press). Cross-Cultural Emotional and Psychophysiological Responses to Music: Comparing Western Listeners to Congolese Pygmies. Proceedings of the 3rd International Conference on Music & Emotion, Jyväskylä, Finland, June 11-15, 2013.

Einarson, K. M. and Corrigall, K. A. (2012-07-15) "Assessing Young Children's Musical Enculturation: Sensitivity to Key Membership, Harmony, and Musical Meter" *Paper presented at the annual meeting of the ISME World Conference and Commission Seminars, Thessaloniki Concert Hall, Thessaloniki, Greece* <Not Available>. 2013-05-28 from http://citation.allacademic.com/meta/p548726_index.html

Einarson, K.M., Corrigall, K.A., & Trainor, L.J. (2012). Assessing young children's musical enculturation: A novel method for testing sensitivity to key membership, harmony, and musical metre. Retrieved 09.11.2012 from http://icmpc-escom2012.web.auth.gr/sites/default/files/papers/273_Proc.pdf

Eugenia, C. G. (1996). Mode discrimination abilities of pre-school children. *Psychology of Music*, *24*(2), 184-198.

Fritz, T., Jentschke, S., Gosselin, N., Sammler, D., Peretz, I., Turner, R., Friederici, A. D., et al. (2009). Universal recognition of three basic emotions in music. Current Biology, *19*(7), 573-576.

Ghaffarim (2008, Jun), *Gonjeshk Lala,* Retrieved August 2015: https://www.youtube.com/watch?v=K9PzXtnplh4

Ghezelayagh, S. (2000). Children's literature as one option. In *Lullabies and Caresses Songs from birth to three years old* (1st ed., Vol. 1, pp. 7-11). Tehran, Tehran: Cultural , art, research institutions on children's literature.

Gregory A.H., Worrall L., & Sarge A. (1996). The development of emotional responses to music in young children, *Motivation and Emotion*, *20*, 4.

Hair, H. (1973). The effect of training on the harmonic discrimination of first grade children. *Journal of Research in Music Education, 21*, 35-45.

Hazel, R. M., Shinobu K. (Apr 1991). Culture and the self: Implications for cognition, emotion and motivation. *Annual Review of Psychology*, *98*(2), 224-253.

Helmholtz, H. L. F. V. (1877). Über die akademische Freiheit der deutschen Universitäten. *1896*, *2*, 191-212.

Ilari, B. (2005a). On musical parenting of young children: Musical beliefs and behaviors of mothers and infants. *Early Child Development and Care.175* (7-8), 647-660. Doi: 10.1080/0300443042000302573

Ilari, B. S. (2010b). Music Perception and Cognition in the First Year of Life. *Early Child Development and Care*, *172*(3), 311–322.

Imberty, M. (1969). *L'acquisition des structures tonales chez l'enfant.* Paris: Klinksiek.

Irma Tapio (2014, November), *Oravan Pesä*, Retrieved August 2015: https://www.youtube.com/watch?v=toyx0-yVUQs

Itten, J. (1970). *The elements of color* (Vol. 4). John Wiley & Sons.

Juslin, P.N. (2008). Emotional responses to music: The need to consider underlying mechanisms. *Behavioral and Brain Sciences*, *31*(5), 559–621. doi:10.1017/S0140525X08005293. Retrieved 09.11.2012 from http://www.psy.gu.se/Personal/DaneilV.htm

Kastner, M. P., & Crowder, R. G. (1990). Perception of the major/minor distinction: IV. Emotional connotations in young children. *Music Perception*, 189-201.

Kerman J., & Tomlinson G. (2008). Listen. *Sixth Edition.* http://bcs.bedfordstmartins.com/listen6e/defaults.asp

Kratus, J. (1993). A development study of children's interpretation of emotion in music. *Psychology of Music, 21*(1), 3-19. Doi: 10.1177/030573569302100101

Krumhansl, C. L., Louhivuori, J., Toiviainen, P., Järvinen, T., & Eerola, T. (1999). Melodic expectation in Finnish folk hymns: Convergence of statistical, behavioral, and computational approaches. *Music Perception, 17(2),* 151-196.

Krumhansl, C. L., Toivanen, P., Eerola, T., Toiviainen, P., & Jarvinen, T. 6c Louhivuori, J.(2000). Cross-cultural music cognition: Cognitive methodology applied to North Sami yoiks. *Cognition*, *75*, 1-46.

Lynch, M.P., and Eilers, R.E., Oller D.K. & Urbano, R.C. (1990). Innateness, experience and music perception, *psychological Science, 1*(4), 272-276

Mackinlay, E. (2009). Singing maternity through autoethnography: making visible the musical world of myself as a mother, *Early Child Development and Care. 179*(6), 717-731. Doi: 10.1080/03004430902944320

Magill, J. M., & Pressing, J. L. (1997). Asymmetric cognitive clock structures in West African rhythms. *Music Perception*, 189-221.

Dude3251 (2009, July), *Lapin äidin kehtolaulu- Mirjam Helin,* Retrieved August 2015: https://www.youtube.com/watch?v=YoafITpr3jA

MaijaVilkkumaa (2014, October), *Oravan pesä*, Retrieved August 2015: https://www.youtube.com/watch?v=odJZFJt_u3c

Meyer, G. J., Finn, S. E., Eyde, L. D., Kay, G. G., Kubiszyn, T. W., Moreland, K. L., Eisman, E. J., & Dies, R. R. (1998). *Benefits and costs of psychological assessment in healthcare delivery: Report of the Board of Professional Affairs Psychological Assessment Work Group, Part 1*. Washington, DC: American Psychological Association

Mieskvartetti Delicato, (2003). *Alakansakoulun lauluja*. Turku: Delicato r.y.

Morgan, G., Killough., C.M., & Thompson, L.A. (2013). Does visual information influence infants' movement to music?, *Psychology of Music, 41*(2),249-264. Doi: 10.1177/0305735611425897

Mualem, O., & Klein, P. (2012). The communicative characteristics of musical interactions compared with play interactions between mothers and their one-year-old infants. *Early Child Development and Care*. 1-17. Doi: 10.1080/03004430.2012.688824.

Music, P. (2010). .: آموزشگاه موسیقی پارس [Pars Music Institute], Retrieved August 6, 2015 form http://pars-music.com/Pages/ShowPage.aspx?id=8

Nagasato, M., & Hoshino, I. (1996). Development of two-axis actuator with small tilt angles for one-piece optical heads. *Japanese journal of applied physics*, *35*(1S), 392.

Nassim2144. (2008, December). *قطعه آسیاب از کنسرت بازی های آوازی- سودابه سالم [Mill, from Soudabeh Salem's singing-playing concerts]* , Retrieved August 6, 2015 from https://www.youtube.com/watch?v=HYHJGSnbmhI

Nawrot, E.S. (2003). The perception of emotional expression in music: Evidence from infants, children and adults. *Psychology of Music. 31*(1), 75-92. Doi: 10.1177/0305735603031001325

Naxos (Sound recording label). (2012). *My first lullaby album*. [S.l.]: Naxos.

OPS 2016 - Esi- ja perusopetuksen opetussuunnitelman perusteiden uudistaminen. (2015, April 5). Retrieved August 6, 2015: http://www.oph.fi/ops2016

Pelle, N., et al. (1994). *Lullabies.* Colchester, Essex: Chandos.

Pournemat, M., (2013). Endearment child's lyrics: Mothers and women's lullabies, *Journal of Persian poetry and prose style, 20(2), 93-110.*

Rentfrow P., & Gosling S. (2003). The do re mi's of everyday life: The structure and personality correlates of music preferences. *Journal of Personality and Social Psychology. 84*(6), 1236-1256.

Rock, A. M. L., Trainor, L. J. & Addison, T. L. (1999). Distinctive messages in infant-directed lullabies and children songs, *Developmental Psychology*,*35*, 527–534.

Sampat, K. S. 1978. Categorical perception in music and music intervals. *Journal of the Indian Musicological Society, 9,* 32-35.

SatuSopanenAndTuttiorkesteri (2014, November), *Tuu Tuu Tupakkarulla,* Retrieved August 2015: https://www.youtube.com/watch?v=5rmoZf-5Tz8

Schellenberg E. G., & Trehub S. E. (1996). Children's discrimination of melodic intervals, *Developmental Psychology, 32*(6), 1039-1050.

Schulten, M.L. (1987). Musical preference: A new approach to investigate its structure and development. *Bulletin of the Council for Research in Music Education, 16*, 160-165.

Soley, G., Hannon, E.E. (2010). Infants prefer the musical meter of their own culture: A cross-cultural comparison. *Developmental Psychology, 46*(1), 286-292, doi: 10.1037/a0017555.

Sony Classical (Sound recording). (2000). *Build your baby's brain 5: Through the power of the Baroque*. New York: Sony Classical.

Stobart, H., & Cross, I. (2000). The Andean anacrusis? Rhythmic structure and perception in Easter songs of Northern Potosí, Bolivia. *British Journal of Ethnomusicology*, *9*(2), 63-92.

Suomea sävelin (n.d.). *Laulut (Balladit ja muut laulut).* Opi suomea musiikin avulla. Retrieved August 25, 2015. http://www.suomeasavelin.net/index.php.

Tero Koskinen (2011, January), *Laura Närhi Sininen uni (Blue dream)*, Retrieved August.2015: https://www.youtube.com/watch?v=8O691H93BAw

Terwogt, M. M., & Van Grinsven, F. (1991). Musical expression of moodstates.*Psychology of music*, *19*(2), 99-109.

Thelen, E. (1994). Three-month-old infants can learn task-specific patterns of interlimb coordination. *Psychological Science*, *5*(5), 280-285.

Thompson, W.F. (2009). *Music, Thought & Feeling: Understanding the Psychology of Music*, New York: Oxford University Press, 320 pages, ISBN10: 0195377079.

Toiviainen, P., & Eerola, T. (2003, September). Where is the beat?: Comparison of Finnish and South African listeners. In *Proceedings of the 5th Triennial ESCOM Conference* (pp. 501-504).

Trehub S.E., & Hannon E.E. (May 2006). Infant music perception: Domain-general or domain-specific mechanisms?, *National Center for Biotechnology Information,100*, 1, 73-99.

Trehub, S. E., & Schellenberg, E. G. (1995). Music: Its relevance to infants, *Annals of Child Development,11*, 1–24.

UNESCO collection, (1996). *Lullabies and children's songs (berceuses et chants d'enfants, on CD ROM.* [CD D 8102]. AUVIDIS/UNESCO.

Unyk, A. M., Trehub, S. E., Trainor, L. J., & Schellenberg, E. G. (1992). Lullabies and simplicity: A cross-cultural perspective. *Psychology of Music*, *20*(1), 15-28.

Walworth, D.D. (Spring, 2009). Effects of development music groups for parents and premature or typical infants under two years on parental responsiveness and infant social development. *Journal of Music Therapy, 46*(1), 32-52.

Yaghmaei, P., (2014,April). Lullabies, the first Iranian women's unwritten poems [Web log post]. Retrieved from http://aryaadib.blogfa.com/post-325.aspx

8 APPENDIX 1 (RESULTS TABLE IN SUMMERY)

TABLE 9. Results in the short word

Question	Significant	Tendency
1. Emotion and music mode:		
1.1. The results from children's questionnaires	$\rho > 0.05$, No.	Minor, especially in Iran.
1.2. Children's mode valence in two countries	Iran: $\rho < 0.05$, Yes. Finland: $\rho > 0.05$, No.	Minor. No difference.
1.3. The results from mothers' questionnaires	$\rho < 0.05$, Yes.	Minor.
1.4. Mothers' mode valence in two countries	Iran: $\rho < 0.05$, Yes. Quite strong. Finland: $\rho < 0.05$, Yes.	Minor.
1.5. Similarity between mother and child in music valence of different music modes	$\rho > 0.05$, No. (very small)	Tendency for rating to be related. In the same way.
1.6. The similarity between mother and child in music valence of different music modes in two nationalities	$\rho > 0.05$, No for both.	Finland is more similar.
2. Music preferences and music mode:		
2.1. Children's music mode preference	$\rho > 0.05$, No.	Minor.
2.2. The role of nationality in music mode preference	Iran: $\rho < 0.05$, Yes. Finland: $\rho > 0.05$, No.	Iran: Minor. Finland: Major.
2.3. Mothers' music mode preference as the adult group	$\rho < 0.05$, Yes.	Minor.
2.4. In two different nationalities	Iran: $\rho < 0.05$, Yes. Finland: $\rho > 0.05$, No.	Iran: Minor. Finland: Almost same.
2.5. Relationship between mothers and children in music mode preferences	$\rho < 0.01$, Yes.	There is relationship!
2.6. In two different nationalities	Iran: $\rho < 0.01$, Yes. Finland: $\rho > 0.01$, No.	Nationality plays role!
3. Music familiarity and music mode:		
3.1. Children's music preference and familiar music	$\rho < 0.01$, Yes.	Significantly Meaningful!
3.2. In two different nationalities	Iran: $\rho < 0.01$, Yes. Finland: $\rho > 0.01$, No.	Iran: Familiar. Finland: No difference.
3.3. Mother's music preference and familiar music	$\rho < 0.01$, Yes.	Significantly Meaningful!
3.4. In two different nationalities	Iran: $\rho < 0.01$, Yes. Finland: $\rho < 0.01$, Yes.	Iran: Familiar. Finland: Familiar.
3.5. Relationship between mothers and children in music familiarity.	$\rho < 0.01$, Yes.	Liking familiar music.
3.6. In two different nationalities	Iran: $\rho < 0.01$, Yes. Finland: $\rho > 0.01$, No.	Iran: Liking familiar music. Finland: Nothing

9 APPENDIX 2 (QUESTIONNAIRES)

9.1 English Version

9.1.1 Announcement form

Jyväskylän Yliopisto – University of Jyväskylä

"*The effects of culture on children's perception of emotion in music*"

I'm a student on the Music, Mind and Technology Master's program at the Department of Music, University of Jyväskylä.

I'm doing a research project to investigate if there is a correlation between culture and children's perception of emotion in music.

I would like to invite you to take part in this research. It will take approximately a half hour to complete. You should answer to a simple questionnaire in (mother tongue of the participant).

If you agree to participate, please sign the consent form attached below.

It is not expected that the questions asked will cause any stress or discomfort.

The information you provide will be treated as confidential, and only my supervisors and I, as a researcher, will have access to it.

Data obtained through the questionnaire will be stored in a locked cabinet at the University of Jyväskylä for a minimum of six years from the date of publication of the results of this study.

You can choose to withdraw from this study at any time. If you withdraw, any information gathered will not be used.

At the conclusion of the study, a summary of the finding will be made available to you if you wish.

If you have any further questions regarding the study, please contact:

Researcher: Azadeh Okhovat Poudeh
Tel: +358443779373 Email: azadehok@yahoo.com

Dr.Geoff Luck
Tel: +358505762286
Geoff.luck@jyu.fi
Department of Music, Room: Musica 209
P.O.Box 35
40014 University of Jyväskylä
Finland

Dr.Reza Johari Fard
Tel: +989133170542
rjoharifard@gmail.com
Department of Clinical Psychology (IAU)
No, 121
Jahaniyan St. Between Ahmadi & Adham St.
Ahwaz, IRAN

9.1.2 Consent for Participation in Survey study

My child and I voluntarily participate in a research project conducted by Azadeh Okhovat Poudeh from the department of Music of the University of Jyväskylä. I understand that the project is designed to gather information about *"The effects of culture on children's perception of emotion in music"*. I will be one of approximately 30 people completing the survey for this research.

1. My participation in this project is voluntary. I understand that I will not be paid for my participation. My child and I may withdraw and discontinue participation at any time without penalty. If we decline to participate, my questionnaire will be removed from the study.

2. If I feel uncomfortable in any way when answering the survey questions, I have the right to decline to answer the questions.
3. The questionnaire will take approximately half an hour for per person to complete. My child and I will complete the survey in the presence of the researcher.
4. I understand that the researcher will not identify me and my child by name in any reports using information obtained from this survey, and that our confidentiality as a participant in this study will remain secure except in cases of any harm to someone, and/or in case of any legal or abuse issue**.**
5. All the information will be kept confidential in the context of this project except for the conditions mentioned above.
6. I understand that this research study has been reviewed and approved by the supervisor of Azadeh Okhovat Poudeh's dissertation at the Department of Music, University of Jyväskylä. For research problems or questions regarding subjects, the researchers may be contacted. [Azadeh Okhovat: azadehok@yahoo.com]

7. I have read and understood the explanation provided to me. I have had all my questions answered to my satisfaction, and my child and I voluntarily agree to participate in this study.

My Signature **Date**

_____ _____

For further information, please contact:

Dr.Geoff Luck
Tel: +358505762286
Geoff.luck@jyu.fi
Department of Music, Room: Musica 209
P.O.Box 35
40014 University of Jyväskylä
Finland

Dr.Reza Johari Fard
Tel: +989133170542
rjoharifard@gmail.com
Department of Clinical Psychology (IAU)
No, 121
Jahaniyan St. Between Ahmadi & Adham St.
Ahwaz, IRAN

9.1.3 Questionnaire for parents

Participant number: 2013-(1-Iran/2-Finalnd)-child number-sibling number-parents (1-mother/2-father)

Participant number (parents):2013-1-01-02-1 Age: Date: Job:

- **Before beginning to listen to music:**

1- How is your mood right now? (Choose 0 if you are in bad mood and 5 if you are in good one.)

Negative 0 1 2 3 4 5 =Positive

Comment: If you want to explain more or add something about your mood, feel free please.

……
……

2- How much do you like music?

I dislike music 0 1 2 3 4 5=I like music very much

3- For how long do you listen to music each day, on average?

Less than an hour per day 0 1 2 3 4 5= More than 3 hours per day

4- How familiar would you say you are with playing music or singing?

I'm a music listener 0 1 2 3 4 5 = I'm a professional musician

Comment: (Based on your knowledge about theoretical and practical aspects of music)

…….

5- If you play an instrument (including voice), please add a description here: (How long/ What Kind of/ Were you taught or you learned by yourself and …)

……

……

6- Which kind of music do you prefer to listen to?

1-Western Classic 2-(Fi/Ir)[16] classical music 3-Folk music 4-Rock 5-Pop

6-Rap 7- Jazz 8-Country 9- Hip-hop 10-Heavey Metal

Comments: (If you don't know the genre of your favorite music you can write some examples here)

……

7- Which kind of music do you prefer not to listen to?

1-Western Classic 2- (Fi/Ir) classical music 3-Folk music 4-Rock 5-Pop

6-Rap 7- Jazz 8-Country 9- Hip-hop 10-Heavey Metal

Comments: (If you don't know the genre which you dislike, you can write some examples here)

……

8- With whom do you usually listen to music?

1-Alone 2-With my child 3-With my spouse 4-With my friend 5- In a group

Comment: (Any more people which is not mentioned here)

……

9- In which situation do you usually listen to music?

1-Taking a rest or Sleeping 2-Driving 3-Studying 4-During Sports 5-Wedding

Comment: (Any more situations which is not mentioned here)

……

10- Do you ever sing lullabies for your child?

[16] . It is a country where the testing is done.

Never 0 1 2 3 4 5 = every night

Comment:

……

11- Until what age did you sing lullabies for your child? Until s/he was …….. old.

Under 1 year 1 2 3 4 5 = It is continuing so far

12- Please press the button and sing any part of your favorite lullabies that you have sung for your baby before or which you currently sing. If you were used to making sounds to sleep your child, please record it here, as well.

9.1.4 Questionnaire for children

Participant number (child): 2013-1-01-02 (if there is no sibling=00)

Age: Gender:

- **Before beginning to listen to music:**

1- How is your mood right now?

1-Sad 2-Sleepy 3-Neither sad, nor happy 4-Happy 5-Excellent

Comment: If you want to explain more or add something about your mood, feel free please.

…….

2- How much do you like music?

1-I dislike music 2-Neither like, nor dislike 3-I like music very much

3- How often do you listen to music?

1-Seldom 2-Sometimes 3-Usually

4- How familiar are you with playing music or singing?

1-I'm a music listener 2-I can play instrument a little 3-I can play instrument well

……

5- If you play an instrument (including voice), please add a description here: (How long/ What Kind of/ Were you taught or you learned by yourself and …)

……

6- Which music do you prefer to listen to?

1-Children music 2-The music which my mom listens

3-The music which my dad listens 4-The music which my sibling listens

5-The music which my friends listen

Comment: (If your favorite music is not in the list please write it down here)

……

7- Which kind of music emotion do you prefer to listen to?

1-Sad 2-Relax 3-It's not important 4-Happy 5-Energetic

8- Which kind of music tempo do you prefer to listen to?

1-Slow tempo 2-Neither to slow, nor to fast 3-Fast tempo

9- With whom do you usually listen to music?

1-Alone 2- With my parents 3-With my sibling 4-With my friend 5-In a group

Comment: (Any more people which is not mentioned here)

……

10- In which situation do you usually listen to music?

1-Taking a rest or Sleeping 2-Playing 3-Party or Wedding
4-Studying 5-During sports

Any more: ……

11- Which classes have you taken so far?

1-Music 2-Painting 3-Foreign language 4-Sport 5-Religion

Any more: …….

9.1.5 Questions after listening to each excerpt

1- How much do you like this music?

0-NO 1 2 3 4 5-YES

Comment: (If you would like to add more details, feel free please)

……..

2- Is this music familiar to you? Have you heard it before?

0-NO 1 2 3 4 5-YES

3- Which of the following pictures shows the feeling you have while listening to the music?

1 2 3 4

4- Which color does that music have?

1 2 3 4 5 6

9.2 Persian Version

9.2.1 فراخوان شرکت در پژوهش

دانشجوی فوق لیسانس در رشته موسیقی، ذهن و فناوری: آزاده اخوت، از دانشجویان دانشگاه یووسکولا فنلاند در حال انجام پژوهشی در مورد تأثیر فرهنگ بر احساس موسیقایی کودکان است. در صورتی که تمایل دارید در این تحقیق شرکت کنید، پس از مطالعه متن زیر از طریق ایمیل و یا شماره تلفن، برای تعیین زمان موردنظر برای شرکت در تحقیق، تماس حاصل فرمایید.

با سلام و احترام

در پژوهشی که پیش روست، اینجانب بدنبال تأثیر فرهنگ بر احساس موسیقایی کودکان براساس برخی متغیرهای مهم موسیقی و روانشناسی می باشم. این پژوهش کمک می کند تا در آینده بتوانیم به انجام تحقیقات دقیق‌تر در زمینه موسیقی مناسب برای کودکان در فرهنگ‌های مختلف و تأثیر آن بر پرورش و رشد احساسات و عواطف آنها از انواع موسیقی بپردازیم. متاسفانه برخلاف بسیاری از کشورهای دنیا که از چندین دهه پیش به انجام این گونه تحقیقات در زمینه کودک پرداخته اند، دسترسی به چنین داده‌هایی در کشور ما آن هم با وجود چنین موسیقی متنوعی که در جای جای این سرزمین پهناور جریان دارد، همچنان با محدودیت مواجه است. به یاد داشته باشید که این کار تلاشی است در جهت آغاز تحقیقات در زمینه روانشناسی موسیقی در کودکان در ایران که درنتیجه مشارکت شما از اهمیت بسیار بالایی برخوردار است.

فرآیند پژوهش

در این پژوهش که در دو کشور ایران و فنلاند برای **کودکان 5 تا 8 سال** و با **همراهی والدین** (مادر یا پدر و یا در صورت امکان هر دو) صورت خواهد گرفت، خواسته می‌شود تا کودک و والدین بطور جداگانه پاسخگوی دو پرسشنامه باشند. پرسشنامه اول برای والدین شامل 12 سوال، و برای کودک شامل 11 سوال به زبان ساده و قابل فهم می‌باشد. این بخش برای آشنایی محقق با پیش زمینه خانواده درنظر گرفته شده. پرسشنامه دوم براساس 12 موسیقی کوتاه 20 تا 25 ثانیه ای درنظر گرفته شده و حاوی 4 سوال یکسان برای هر قطعه می باشد. این پرسشنامه نیز به طور همزمان اما جداگانه برای کودک و والدین برگزار خواهد شد. پر کردن مجموع پرسشنامه ها برای هر فرد **حداکثر حدود ۳۰ دقیقه** زمان میگیرد.

شرایط شرکت در این تحقیق آن است که کودک در فاصله سنی 5 تا 8 سال باشد و **آشنایی قبلی با موسیقی برای کودک و خانواده اش به هیچ عنوان الزامی نیست**. تنها تمایل و رضایت او و همکاری خانواده برای شرکت در این تحقیق مدنظر می باشد.

چنانچه تمایل به شرکت در این پژوهش را دارید و یا در مورد آن و یا شرایط شرکت خود در آن سوال دارید و دچار ابهام هستید لطفا به یکی از دو طریق زیر تماس حاصل فرمایید:

ایمیل اینجانب (آزاده اخوت) : azadehok@yahoo.com شماره تلفن همراه : 09133274268

با سپاس از همکاری شما : آزاده اخوت

9.2.2 رضایت نامه شرکت در پژوهش

من (مادر/ پدر) و فرزند (فرزندانم) به طور داوطلبانه تمایل به شرکت در پژوهش پیش رو که مجری آن آزاده اخوت پوده از دانشکده موسیقی دانشگاه یووسکولا در کشور فنلاند و زیر نظر دکتر جف لاک (استاد دانشگاه یووسکولا) و دکتر رضا جوهری فرد (استاد دانشگاه آزاد اهواز) می باشد را داریم. اینجانب مطلع هستم که که این پژوهش برای جمع آوری اطلاعات درباره "تاثیر فرهنگ بر درک احساس موسیقایی کودک" می باشد و من و کودک/کودکانم یکی از 30 شرکت کننده در بخش مربوط به ایران خواهیم بود.

1- من از طریق فراخوان و یا توضیحات مجری طرح نسبت به هدف از این تحقیق و روش انجام پژوهش و نحوه انتخاب من و فرزندم بعنوان نمونه کاملا مطلع گردیده ام. و بدین گونه به من مهلت داده شد تا نظر خود را پس از مشورت با هر کس که مایل هستم، مبني بر شرکت با میل خود و کاملا" اختياري یا عدم شرکت در پژوهش مذکور اعلام نمایم.

2- حضور من و فرزندم در این پژوهش کاملا داوطلبانه است و هیچ گونه هزینه ای برای شرکت در آن به ما داده نخواهد شد. ضمنا" مجري یادآور شدند که در صورت اعلام عدم تمایل به همکاري در این پژوهش فرم های مربوط به ما را بدون هیچ جریمه و اشکالی از لیست خارج خواهد کرد.

3- من مطلع شدم اگر در پاسخ به پرسشی از فرم پرسشنامه احساس راحتی نکردم، کاملا اختیار دارم که از پاسخ دادن به آن خودداری کنم.

4- پاسخگویی به پرسشنامه موردنظر برای هر فرد در حدود نیم ساعت زمان خواهد گرفت و من و کودکم فرم را در حضور پژوهشگر تکمیل خواهیم کرد.

5- اینجانب مي دانم که اطلاعات مربوط به من و کودکم، اعم از اطلاعات شخصي و غیره صرفا" نزد محقق این تحقیق قرار دارد و این محقق به هیچ عنوان اجازه انتشار اطلاعات شخصي ما را مگر با اجازه کتبي من ندارد و فقط نتایج کلي و گروهي این تحقیق را مي توانند بصورت مقاله ، گزارش و از این قبیل منتشر نمایند.

6- اینجانب مطلع گردیدم که این پژوهش توسط استادان ناظر خانم آزاده اخوت پوده بازخوانی و تایید شده است و برای هرگونه مشکل و سوال در زمینه موضوع پژوهش با دانشجوی پژوهشگر مذکور از طریق ایمیل azadehok@yahoo.com تماس خواهم گرفت.

7- اینجانب تمام توضیحات فراهم شده در فرم رضایت نامه را به طور کامل مطالعه کرده ام، و به تمام سوالاتم در حد رضایت بخش پاسخ داده شده است. درنتیجه من از جانب خود و کودکم برای شرکت داوطلبانه در این پژوهش موافقت خود را اعلام می دارم.

امضای شرکت کننده　　شماره تماس　　تاریخ

مهر و امضاي پژوهشگر

استادان ناظر:

Dr.Reza Johari Fard
Tel: +989133170542
rjoharifard@gmail.com
Department of Clinical Psychology (IAU)
No, 121
Jahaniyan St. Between Ahmadi & Adham St.
Ahwaz, IRAN

Dr.Geoff Luck
Tel: +358505762286
Geoff.luck@jyu.fi
Department of Music, Room: Musica 209
P.O.Box 35
40014 University of Jyväskylä
Finland

9.2.3 پرسشنامه والدین

شماره شرکت کننده: 2013-(1-ایران)- شماره کودک-تعداد فرزندان شرکت کننده در تحقیق- والد (1-مادر/2-پدر)
شماره شرکت کننده: سن: تاریخ: شغل:
بخش نخست:

1- خُلق شما در حال حاضر چگونه است؟ (اگر خلق نامناسبی دارید صفر و اگر در خلقتان شادی است 5 را انتخاب کنید.)
بسیار بد = 0 1 2 3 4 5 = بسیارخوب
پیشنهاد: اگر تمایل دارید در قسمت زیر میتوانید توضیح بیشتری دهید و یا جزییات بیشتری درباره وضعیت خلق و خویتان اضافه کنید.
.....

2- تا چه اندازه به موسیقی علاقه مند هستید؟
اصلا دوست ندارم = 0 1 2 3 4 5 = بسیار دوست دارم
توضیحات یا جزئیات بیشتر در صورت تمایل:
.....

3- در طول روز به طور میانگین، چقدر از وقت خود را به گوش کردن به موسیقی سپری میکنید؟
کمتر از یک ساعت در روز = 0 1 2 3 4 5 = بیشتر از 3 ساعت در روز
توضیحات یا جزئیات بیشتر در صورت تمایل:
.....

4- به چه اندازه با نوازندگی ساز یا خوانندگی آشنایی دارید؟
موسیقی گوش میدهم = 0 1 2 3 4 5 = یک موزیسین حرفه‌ای هستم
پیشنهاد: (براساس اطلاعاتتان درباره جنبه های تئوری یا عملی موسیقی میتوانید به این سوال پاسخگو باشید)
.....

5- اگر سازی می نوازید و یا خواننده هستید، لطفا به تفصیل در زیر توضیح دهید: چند سال؟ / چه ساز و یا سبکی؟/ آیا خودتان فراگرفته اید یا تحت آموزش بوده اید؟ / و ...
.....
.....

6- ترجیح می دهید به چه نوع موسیقی گوش **دهید؟**

1- کلاسیک غربی 2- کلاسیک ایرانی 3- موسیقی محلی و قومی 4- راک

5- پاپ 6- رپ 7- جز 8- کانتری 9- هیپ-هاپ 10- هِوی متال

پیشنهاد: (اگر سبک و نوع موسیقی مورد علاقه خود را نمی‌دانید میتوانید نمونه هایی از آن را نام ببرید)

.....

7- ترجیح میدهید به چه نوع موسیقی گوش **ندهید؟**

1- کلاسیک غربی 2- کلاسیک ایرانی 3- موسیقی محلی و قومی 4- راک

5- پاپ 6- رپ 7- جز 8- کانتری 9- هیپ-هاپ 10- هِوی متال

پیشنهاد: (اگر سبک و نوع موسیقی مورد علاقه خود را نمی‌دانید میتوانید نمونه هایی از آن را نام ببرید)

.....

8- معمولا با چه کسانی موسیقی گوش میدهید؟

1- تنها 2- با فرزندم 3- با همسرم 4- با دوستم 5- به طور گروهی

پیشنهاد: اگر با فرد یا افرادی موسیقی گوش میکنید که در اینجا ذکر نشده است، لطفا در زیر اضافه کنید.

.....

9- معمولا در چه موقعیت و یا شرایطی بیشتر به موسیقی گوش میدهید؟

1- استراحت یا خواب 2- رانندگی 3- مطالعه 4- ورزش 5- مهمانی یا عروسی

پیشنهاد: اگر موقعیت دیگری نیز مدنظرتان هست که در بالا ذکر نشده در زیر اضافه کنید.

.....

10- آیا تابحال برای فرزندتان لالایی خوانده اید؟

هرگز=0 1 2 3 4 5= هرشب

توضیحات یا جزئیات بیشتر در صورت تمایل:

.....

11- تا چه سنی برای کودک خود لالایی میخواندید؟ تا وقتیکه او ..... سال داشت/دارد

زیر یک سال =0 1 2 3 4 5= تا هم اکنون ادامه دارد

توضیحات یا جزئیات بیشتر در صورت تمایل:

.....

12- لطفا با فشردن دکمه مربوط به ضبط صدا بر روی دستگاه MP3 Player در ابتدا شماره برگه خود را گفته و سپس هر قسمت از لالایی های موردعلاقه خودتان را که برای فرزندتان میخواندید و یا میخوانید، را بخوانید. اگر از صدا یا آوای خاصی برای خواباندن کودکتان استفاده میکردید، لطفا آن را هم ضبط کنید.

9.2.4پرسشنامه کودک

شماره شرکت کننده: 2013- (1-ایران)- شماره کودک- شماره خواهر یا برادر شرکت کننده (اگر نداشت= 00)

شماره شرکت کننده: سن: جنسیت: تاریخ:

بخش اول:

1- الان حالت چطوره؟

1- بد 2- خواب آلود 3- نه خوبم، نه بد 4- خوب و شاد 5- عالی

پیشنهاد: اگر دوست داری بیشتر درباره حال واحوال خودت توضیح بدی، میتونی در زیر بنویسی.

.....

2- چقدر به موسیقی علاقه داری؟

1- اصلا دوست ندارم 2- برام مهم نیست (نه خوشم میاد، نه بدم میاد) 3- خیلی دوست دارم

3- معمولا چقدر موسیقی گوش می دهی؟

1- اصلا گوش نمی کنم 2- گاهی گوش می دهم 3- بیشتر اوقات گوش می دهم

4- چقدر با نواختن ساز و یا خواندن در دنیای موسیقی آشنا هستی؟

1- من موسیقی گوش میدهم 2- می توانم کمی ساز بنوازم یا بخوانم 3- می توانم خیلی خوب ساز بنوازم یا بخوانم

5- اگر سازی می نوازی (یا میتوانی بر طبق نت های موسیقی آواز بخوانی)، لطفا آن را کامل توضیح بده: چند سال؟ / چه نوع موسیقی؟/ آیا خودت یاد گرفته ای یا تحت آموزش کسی (چه کسی) بوده ای؟

.....

.....

6- چه نوع موسیقی را دوست داری گوش کنی؟

1- موسیقی مخصوص کودک 2- موسیقی ای که مادرم گوش می کند

3- موسیقی که پدرم گوش می کند 4- موسیقی ای که خواهر یا برادرم گوش می کند

5- موسیقی که دوستانم گوش می کنند

پیشنهاد: اگر موسیقی ای که گوش می کنی جز موارد بالا نیست آن را در زیر نام ببر.

.....

7- دوست داری وقتی موسیقی گوش میکنی چه حسی به تو بدهد؟

1- غم 2- آرامش 3- برایم مهم نیست 4- شادی 5- هیجان و انرژی

موارد دیگر: .....

8- دوست داری موسیقی ای که گوش می دهی چه سرعتی داشته باشد؟

1- آرام باشد 2- نه آرام باشد، نه تند 3- تند باشد

9- معمولا موسیقی را همراه چه کسی گوش می کنی؟

1- تنها 2- همراه مادر و یا پدرم 3- همراه خواهر یا برادرم 4- همراه دوستم 5- همراه با گروه

پیشنهاد: اگر موسیقی را همراه با فردی یا افرادی گوش می دهی که در بالا نام برده نشده، در زیر بنویس.

.....

10- معمولا در چه موقعیت و شرایطی موسیقی گوش می دهی؟

1- استراحت یا خواب 2- بازی 3- مهمانی یا عروسی 4- مطالعه 5- ورزش

پیشنهاد: اگر موسیقی را در شرایط و یا موقعیتی گوش می دهی که در بالا نام برده نشده، در زیر بنویس.

.....

11- تا به حال در کدام یک از کلاس های زیر شرکت داشته ای؟

1- موسیقی 2- نقاشی 3- زبان های خارجی 4- ورزش 5- کلاسهای مذهبی

کلاس های دیگر: .....

9.2.5 بخش دوم، بعد از گوش فرا دادن به قطعات انتخابی

1. تا چه اندازه این موسیقی را دوست داشتید؟ **(آهنگ شماره : .....)**

0=اصلا 1 2 3 4 5= بسیارزیاد

پیشنهاد: اگر تمایل دارید موردی اضافه کنید در زیر آن را ذکر کنید.

.....

2. آیا این موسیقی برایتان آشنا بود؟ قبلا آن را شنیده بودید؟

0= خیر 1 2 3 4 5= بله، کاملا

3. کدامیک از آدمک های زیر احساس شما را از گوش کردن به این موسیقی نشان می دهد؟

1 2 3 4

4. این آهنگ چه رنگی داشت؟

1 2 3 4 5 6

9.3 Finnish Version

9.3.1 Selvitys tutkimuksesta

Tervetuloa Meidän Musiikkikokeiluumme!

Jyväskylän yliopisto

Olen opiskelija englanninkielisestä Music, Mind and Technology (musiikki, mieli ja teknologia) -mais-teriohjelmasta, jota opiskelen Jyväskylän yliopistossa musiikin laitoksella. Teen tutkimusta, **jossa pyrin selvittämään, onko löydettävissä yhteyttä sen välillä, mistä kulttuurista lapsi tulee ja kuinka hän kokee erilaisia tunteita musiikissa.**

Haluaisin mielelläni pyytää lapsen äitiä ja lasta (**5-8 vuotiaille lapsille**) ottamaan osaa tähän tutkimukseen. Tutkimuksessa lapsi ja äiti vastaavat yksinkertaiseen kyselylomakkeeseen, minkä jälkeen he kuuntelevat erilaisia musiikkinäytteitä. Tutkimus on samanlainen sekä äidille että lapselle, ja se tapahtuu siten, että lapsi ja äiti vastaavat kyselyyn samanaikaisesti eri tiloissa. Tutkimusavustaja avustaa lasta vastaamisessa. **Osallistujien tulee olla suomalaisesta perheestä tai ainakin äidin tulee olla suomalainen**. **Osallistuminen vie noin puoli tuntia aikaa**.

★ ★ Lapsille luvassa yllätys ★ ★

Jos sinulla on lisäkysymyksiä tutkimukseen liittyen, ole hyvä ja ota yhteyttä!

Tukija: Azadeh Okhovat Poudeh
Puh: +358443779373 Email in English: azadehok@yahoo.com
Email in Finnish: Hannele.valipakka@jyu.fi
<hannele.valipakka@jyu.fi>: <hannele.valipakka@jyu.fi>:

Ohjaaja: Tri. Geoff Luck
Puh: +358505762286
Email
Musiikin laitos, huone 209/Musica
Postilokero 35
40014 Jyväskylän Yliopisto
SUOMI

Ohjaaja: Tri. Reza Johari Fard
Puh: +989133170542
Email
Kliinisen Psykologian Laitos, IAU
No, 121 Jahaniyan St.
Between Ahmandi & Adham St.
Ahwaz, IRAN

9.3.2 Suostumus tutkimukseen osallistumisesta

Minä ja lapseni osallistumme vapaaehtoisesti tutkimukseen, jonka tekee Azadeh Okhovat Poudeh Jyväskylän yiopiston msiikin litokselta. Ymmärrän, että tutkimuksen tarkoituksena on kerätä tietoa aiheesta ”Kulttuurin vaikutus lapsen kykyyn havaita tunteita musiikissa”.

Olen yksi noin kolmestakymmenestä (30) henkilöstä, jotka osallistuvat tutkimukseen ja vastaavat siihen liittyvään kyselyyn.

Osallistun tähän projektiin vapaaehtoisesti. Ymmärrän, että en saa osallistumisestani rahallista palkkiota. Minä ja lapseni voimme vetäytyä tutkimuksesta pois minä hetkenä hyvänsä, ilman että siitä seuraa mitään. Ellemme osallistu, tutkimuslomakkeet otetaan pois tutkimuksesta.

1. Jos minulle tulee stressiä tai minkäänlaista epämukavaa tunnetta vastatessani kysymyksiin, voin kieltäytyä vastaamasta.

2. Kyselyyn vastaaminen kestää noin puoli tuntia. Minä ja lapseni vastaamme kyselyyn tutkimuksen tekijän läsnäollessa.

3. Ymmärrän, että tutkimuksen ohjaaja ei mainitse minua tai lastani missään tutkimusmateriaalista johdetussa raportissa ja että minun ja lapseni yksityisyys pidetään turvattuna tutkimuksen aikana ja sen jälkeen, paitsi jos havaitaan mahdollinen pahoinpitely, hyväksikäyttö tai muu laiton toiminta.

4. Kaikki tutkimuksessa kerätty tieto pidetään luottamuksellisena, paitsi yllämainituissa tilanteissa.

5. Ymmärrän,että tämän tutkimuksen on käynyt läpi ja hyväksynyt Azade Okhovat Poudehin väitöskirjan ohjaaja Jyväskylän yliopistosta, musiikin laitokselta. Kaikissa ongelmissa ja kysymyksissä liittyen tutkimukseen voin ottaa yhteyttä kyselyn ohjaajaan ja tutkimuksen tekijään. (Azade Okhovat Poudeh: azadehok@yahoo.com)

6. Olen lukenut ja ymmärtänyt minulle annetun selvityksen tutkimuksesta. Kaikkiin tutkimukseen liittyviin kysymyksiini on vastattu minua tyydyttävällä tavalla.

   Minä ja lapseni osallistumme vapaaehtoisesti tähän tutkimukseen.

Allekirjoitus **Päivämäärä**

---------- ----------

Halutessasi lisätietoa, ole hyvä ja ota yhteyttä

Tri. Geoff Luck
Puh: +358505762286
Email
Musiikin Laitos, Huone 209/Musica
Postilokero 35
40014 Jyväskylän Yliopisto
SUOMI

Tri. Reza Johari Fard
Puh: +989133170542
Email
Kliinisen Psykologian Laitos, IAU
No, 121 Jahaniyan St.
Between Ahmandi & Adham St.
Ahwaz, IRAN

9.3.3 Kyselylomake vanhemmille

Osallistujan numero (vanhemmat): Ikä: Päivämäärä:

- Ennen musiikin kuuntelua:

1: Minkälainen olo sinulla on juuri nyt? (Valitse 0 jos sinulla on paha olo, ja 5 jos todella hyvä.)

Kielteinen olo=0 1 2 3 4 5=Todella hyvä olo

Voit kommentoida tähän, jos sinulla on jotain lisättävää aiheeseen:

2: Kuinka paljon pidät musiikista?

En pidä musiikista 0 1 2 3 4 5=Pidän musiikista todella paljon

3: Kuinka paljon yleensä kuuntelet musiikkia päivittäin?

Alle tunnin päivässä 0 1 2 3 4 5 =Yli kolme tuntia päivässä

4: Kuinka lahjakas olet laulamisessa tai jonkin soittimen soittamisessa?

Kuuntelen musiikkia 0 1 2 3 4 5=Olen ammattilaismuusikko

Lisäkommentteja aiheeseen liittyen:

5: Jos laulat tai soitat jotakin soitinta, ole hyvä ja kirjoita tähän lisätietoja aiheesta (esim. kuinka kauan olet soittanut, minkälaista musiikkia, opiskelitko itse vai opettajan ohjauksessa...)

6: Minkälaista musiikkia kuuntelet mieluiten?

1-Länsimaista klassista musiikkia 2-Iskelmää 3-Kansanmusiikkia 4-Rockia 5-Poppia 6-Räppiä 7-Jazzia 8-Countrya 9-Hip-Hopia 10-Heavy Metalia

Jos et tiedä tai osaa nimetä lempimusiikkisi lajityyppiä, voit lisätä tähän joitakin esimerkkejä musiikista, jota kuuntelet:

7: Minkälaista musiikkia et kuuntele mielelläsi?

1-Länsimaista klassista musiikkia 2-Iskelmää 3-Kansanmusiikkia 4-Rockia 5-Poppia 6-Räppiä 7-Jazzia 8-Countrya 9-Hip-Hopia 10-Heavy Metalia

Jos et tiedä tai osaa nimetä sen musiikin lajityyppiä josta et pidä, voit lisätä tähän joitakin esimerkkejä sellaisesta musiikista:

8: Minkälaisessa seurassa yleensä kuuntelet musiikkia?

1-Yksin 2-Lapseni kanssa 3-Puolisoni kanssa 4-Ystäväni kanssa 5-Ryhmässä

Lisäkommentteja / Henkilö, jota ei ole mainittu tässä:

9: Minkälaisessa tilanteessa yleensä kuuntelet musiikkia?

1-Levätessäni / Nukkuessani 2-Ajaessani autolla 3-Opiskellessani 4-Urheilun aikana 5-Juhlissa

Lisäkommentteja / Tilanne, jota ei ole mainittu tässä:

10: Laulatko koskaan lapsellesi kehtolauluja?

En koskaan 0 1 2 3 4 5=Joka ilta

11: Mihin ikään asti lauloit kehtolauluja lapsellesi ..... vuoteen asti.

Alle vuosi 1 2 3 4 5=laulaminen jatkuu

12: Ole hyvä ja paina nappia. Sano sitten osallistujanumerosi (paperin yläkulmassa) ja laula mielikehtolaulujasi (tai osia niistä, joko lauluja joita lauloit ennen tai joita laulat nyt. Jos käytät joitakin muita ääniä lapsen nukutamisessa, (ole hyvä ja) äänitä ne myös tähän.

9.3.4 Kyselylomake lapselle

Osallistujan numero (lapsi):

Ikä: Sukupuoli:

- Ennen musiikin kuuntelua:

1: Minkälainen olo sinulla on nyt?

1-Surullinen 2-Väsynyt 3-Ei surullinen eikä iloinen 4-Iloinen 5-Tosi iloinen

Jos haluat vielä lisätä jotain siihen liittyen, miltä sinusta tuntuu, voit kirjoittaa sen tähän:

2: Kuinka paljon tykkäät musiikista?

1- En tykkää siitä yhtään 2-En vihaa enkä tykkää musiikista 3-Tykkään musiikista tosi paljon

3: Kuinka usein kuuntelet musiikkia?

1-Harvoin 2-Joskus 3-Usein

4: Kuinka paljon olet soittanut jotain soitinta tai laulanut

1-Kuuntelen musiikkia 2-Osaan soittaa soitinta tai laulaa jonkin verran

3-Osaan soittaa soitinta tai laulaa tosi hyvin

5: Jos soitat jotain soitinta tai laulat, niin kirjoita tähän jotain lisätietoja (esimerkiksi kuinka pitkään olet soittanut, mitä soitinta, minkälaista musiikkia laulat, opettelitko itse vai opettajan kanssa.. ja niin edelleen.)

6: Minkälaista musiikkia tykkäät kuunnella?

1-Lastenmusiikkia 2-Musiikkia, jota äitini kuuntelee 3-Musiikkia, jota isäni kuuntelee

4-Musiikkia, jota sisareni/veljeni kuuntelee 5-Musiikkia, jota kaverini kuuntelevat

Jos musiikki josta tykkäät ei ole listassa, niin kirjoita tähän minkälaisesta musiikista tykkäät. Voit myös kirjoittaa, jos sinulla on muuta sanottavaa liittyen tähän kysymykseen.

7: Minkälaisista tunteista tykkäät musiikissa?

1-Surullisesta musiikista 2-Rentouttavasta musiikista

3-Minulle ei ole väliä sillä minkälaisia tunteita musiikissa on

4-Iloisesta musiikista 5-Vauhdikkaasta, energisestä musiikista

8: Minkälaisesta rytmistä tykkäät musiikissa?

1-Hitaasta musiikista 2-En hitaasta enkä kovin nopeasta musiikista 3-Nopeasta musiikista

9: Kenen kanssa yleensä kuuntelet musiikkia?

1-Yksin 2-Vanhempieni kanssa 3-Siskon tai veljen kanssa

4-Ystäväni kanssa 5- Isossa porukassa

10: Minkälaisessa tilanteessa yleensä kuuntelet musiikkia?

1-Levätessä tai nukkuessa 2-Leikkimisen aikana 3-Juhlissa

4-Tehdessäni koulujuttuja 5-Liikunnan aikana

Muita tilanteita, joissa kuuntelen musiikkia:

11: Minkälaisia oppitunteja sinulla on ollut koulussa?

1-Musiikkia 2-Kuvaamataitoa (piirtäminen, maalaaminen, Savityöt, ...) 3-Vierasta kieltä

4-Liikuntaa 5-Uskontoa

9.3.5 Kysymyksiä jokaisen musiikkinäytteen jälkeen

1- Paljonko pidit tästä musiikista? **Musiikin numero** …….....

0-En ollenkaan 1 2 3 4 5-Pidin tosi paljon

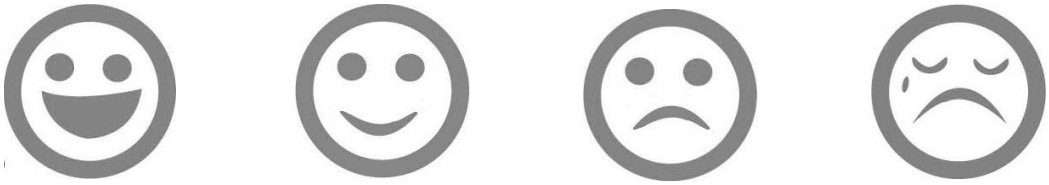
Kommentti: Voit kirjoittaa tähän, jos haluat lisätä jotakin aiheeseen liittyen

……..

2- Tunnetko tätä musiikkia? Oletko kuullut sitä ennen?

0-Ei 1 2 3 4 5-Kyllä

3- Mikä näistä kuvista kertoo miltä sinusta tuntui, kun kuuntelit tätä musiikkia?



1 2 3 4

4- Mikä väri sinulle tuli musiikista mieleen?

1 2 3 4 5 6

10 APPENDIX 3 (ONE SAMPLE OF THE CHI-SQUEARE TABLES)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
MusicMode * Mothers' Valence	550	97.2%	16	2.8%	566	100.0%

MusicMode * Mothers' Valence Crosstabulation

			Mothers' musical valence		
			Negative	positive	Total
MusicMode	Major	Count	110	165	275
		% within MusicMode	40.0%	60.0%	100.0%
	minor	Count	59	216	275
		% within MusicMode	21.5%	78.5%	100.0%
Total		Count	169	381	550
		% within MusicMode	30.7%	69.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	22.217[a]	1	.000		
Continuity Correction[b]	21.355	1	.000		
Likelihood Ratio	22.480	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	22.177	1	.000		
N of Valid Cases	550				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 84.50.

b. Computed only for a 2x2 table

FIGURE 13 : One example of the chi-square tables which is about mothers' musical valence in different modes.