
Early Childhood Musical Experiences: Contributing to Pre-Service Elementary Teachers' Self- Concept in Music and Success in Music Education (during Student Age)

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SUMMARY: This article studies early childhood musical experiences of Finnish pre-service elementary teachers (N=590). The article also analyses their connections between musical self-concept at student age and musical progress in teacher education. Research material was gathered by a questionnaire, which posed retrospective questions about childhood as well as questions about musical self-concept in real time.

The musical self-concept of student teachers was analysed through factor analysis within a field of six sectors: the general concept of one's own musicality, music conducting, musical taste, playing, singing and listening to music.

The highest correlations between self-concept in music and the variables of early childhood experiences were the following: the pleasure of singing, the amount of singing, inventing one's own songs and appreciation of music in the home. The most important impulses encouraging the playing of musical instruments proved to be the amount of playing of family members, the number of musical instruments in the home and the existence of a piano or other keyboard instrument at home. As mentioned before, early childhood musical experiences were also connected with the scores given for singing and piano playing in teacher education.

The research results proved the importance of early childhood musical experiences, because they even at an adult age they still significantly correlate with the individual's musical progress and his or her self-concept in music. At the same time they are part of his or her total personality.

RÉSUMÉ: Cet article porte sur les expériences musicales précoces des futurs enseignants finlandais (N=590) ainsi que sur les liens entre ces expériences, leur "self musical" et leur progression en musique pendant leur formation. Les données de la recherche ont été obtenues par voie de questionnaire, avec des questions rétrospectives sur la petite enfance et des questions d'actualité sur leurs conceptions musicales.

Ces conceptions sont traitées à l'aide d'une analyse factorielle reposant sur six secteurs : caractéristiques générales de sa propre musicalité, direction musicale, goût musical, exercice d'un instrument, chant, écoute de la musique.

Les plus fortes corrélations avec les expériences musicales précoces sont les suivantes : le plaisir de chanter, l'importance du chant, la création de chansons et la place de la musique à la maison. Les stimulants déterminants pour jouer un instrument de musique sont : le nombre de personnes dans la famille jouant d'un instrument, le nombre d'instruments à la maison et la présence d'un piano ou d'un autre instrument-clé. Ces expériences sont également corrélées avec les résultats actuels obtenus en chant et en piano.

Les résultats de cette recherche attestent l'importance des expériences musicales précoces, puisqu'elles restent corrélées de manière significative avec les conceptions musicales et les progrès individuels en musique à l'âge adulte, faisant alors partie intégrante de la personnalité.

ZUSAMMENFASSUNG: In diesem Artikel werden die musikalischen Erfahrungen aus der frühen Kindheit von Studierenden ($N = 590$) mit dem Berufsziel des Klassenlehrers an der Gesamtschule untersucht. Außerdem wird ihr Zusammenhang mit dem musikalischen Selbstkonzept im Erwachsenenalter und dem Studienerfolg im Fach Musik der Lehrerbildung analysiert. Das Untersuchungsmaterial wurde mittels Fragebögen gewonnen. Die die Kindheit betreffenden Fragen sind retrospektiv, die auf das musikalische Selbstkonzept gerichteten Fragen beziehen sich auf die Realzeit.

Das musikalische Selbstkonzept der Lehrerstudenten gliederte sich nach einer Faktorenanalyse in sechs Teilbereiche: in die allgemeine Auffassung von der eigenen Musikalität, in das Leiten von musikalischen Darbietungen, in den Musikgeschmack sowie in das Spielen, das Singen und das Hören von Musik.

Von den Variablen der musikalischen Erfahrungen der Kindheit wiesen den stärksten Zusammenhang mit dem musikalischen Selbstkonzept auf: Freude am Singen und der Umfang des Singens, das Erfinden von eigenen Liedern und die Wertschätzung der Musik im Elternhaus. Von den Impulsen zum Spielen von Instrumenten stellten sich als die wichtigsten heraus die Zahl der Personen, die im Elternhaus Instrumente gespielt haben, die Gesamtzahl der Instrumente und das Vorhandensein eines Klaviers oder eines anderen Tasteninstrumentes. Die genannten musikalischen Erfahrungen der Kindheit standen auch in einem Zusammenhang mit den Noten, die die Studierenden am Lehrerbildungsinstitut im Singen und Klavierspielen erhalten haben.

Die Forschungsergebnisse beweisen die Bedeutung der musikalischen Erfahrungen der frühen Kindheit, denn diese stehen in einem deutlichen Zusammenhang mit den musikalischen Leistungen des Individuums und dem musikalischen Selbstkonzept noch in dessen Erwachsenenalter und bilden zugleich einen Teil der Gesamtpersönlichkeit des Studierenden.

RESUMEN: En este artículo se analizan las experiencias musicales en la infancia temprana de un grupo de estudiantes finlandeses de magisterio ($N = 590$), así como las relaciones de aquellas experiencias con el autoconcepto musical de los estudiantes y las calificaciones obtenidas en los estudios de música durante la carrera de magisterio. El material de investigación ha sido recogido a través de cuestionarios. Las preguntas del cuestionario orientadas a las experiencias musicales de la infancia temprana son retrospectivas, mientras que las preguntas relacionadas con el autoconcepto musical son de tiempo real.

El análisis de factores permitió destacar seis terrenos esenciales en el autoconcepto musical: la idea general sobre las propias dotes musicales; el gusto musical; el dominio de los instrumentos musicales; las actividades relacionadas con la dirección de música; el canto y la audición de música.

Aquellas variables estudiadas que más influencia tenían en el autoconcepto musical eran la frecuencia del canto en la infancia temprana y el placer que producía, la composición de cancioncitas propias y la afición a la música en el ámbito familiar. En cuanto a los estímulos relativos a los instrumentos musicales, los más determinantes resultaron ser el número de familiares que tocaban algún instrumento, el número de instrumentos musicales disponibles y, en especial, la disponibilidad de un piano u otro instrumento de teclado. Las experiencias musicales de la infancia temprana tenían también una nítida conexión con las calificaciones obtenidas en los estudios de música durante la carrera.

Los resultados de la investigación demuestran la importancia de las experiencias musicales de la infancia temprana, ya que aún en la edad adulta continúan influyendo tanto en las realizaciones de la persona en el terreno de la música como en su autoconcepto musical. Al mismo tiempo, este tipo de experiencias constituyen un importante factor en el desarrollo global de la personalidad.

Keywords: Early childhood musical experiences, musical self-concept, pre-service elementary teachers

Introduction

Until recently the field of music education has been relatively little researched. Generally, early childhood musical experiences have mainly been studied in relation to only the very first school years.

The purpose of this article is to describe and analyse the early childhood experiences of student teachers and make clear their connections with both self-concept in music and musical progress in teacher education until adult age. The research results are based on the material gathered in connection with the dissertation of Tarja Tereska (2003). New views and references are represented in the theoretical framework and in discussion.

The development of children's singing abilities

The development of young children's singing ability happens as a part of enculturation without a conscious struggle to improve musical skills or to memorize songs. To a certain extent the development of skills is happening all the time throughout childhood (Sloboda 1994, 200, 215). Generally, the developmental process proceeds from the babbling songs of children under the age of two years to outline songs. This period lasts for about three years (Hargreaves 2000, 156). It is precisely during this phase that most creativity in singing is found. It appears in children's spontaneous songs of different types, such as imitations of learned songs, variations, fragments and improvised parts. At their longest they form potpourris or especially imaginative songs of four year old children. (Moog 1976, 114–117; Fredrikson 1994, 50, 53–60; Sundin 1979, 116–117; Sloboda 1994, 209)

The level of singing skill varies significantly among children of the same age, as shown by Kelley and Sutton-Smith (1987) who have analysed the effect of environment. The researchers observed the effect of home environment stimuli on the speed of musical development. Children may begin to sing at of 9 months or in some cases not until the age of 2. They also conclude that the most important factor in environmental musical stimuli is parents singing with their children. The researchers also noted the possible effect of heredity together with various other environmental factors. (Kelley & Sutton-Smith 1987, 35–53, Papousek 2000, 196–107).

Usually children sing their first draft songs at the age of 5 to 8. The ability to produce accurate intervals, to analyse and keep in tune develop up to the age of 15 (Hargreaves 2000, 156; Sloboda 1994, 209–215). A small child's development in language is supported by music and especially songs. Songs increase vocabulary and also benefit the beginning ability of reading (Nurmilaakso 2004; Edwards & Willis 2000).

The earliest manifestation of a special musical talent is when a child sings his/her first songs at a younger age than might be expected. In their research Howe et al. (1995, 162–172) observed that the most advanced students in a special musical school sang approximately 6 months earlier than the control groups. The starting age of singing and the amount of musical stimuli given by parents had a statistically positive correlation.

The Suzuki-voice program, which Päivi Kukkamäki (2003) has developed under the initiative of Sinichi and Waltraud Suzuki for several years in Finland and abroad, is a useful way to study early singing. At the beginning parents have their own course, in which they learn songs, games and nursery rhymes. The private singing tuition begins in 15 minute lessons at the age of 3, and familiarising the child to musical notes starts at the age of 6 to 8. The main goal is to arouse the love of music in a child through singing. The singing and listening to music which the Suzuki method encourages, provides the basis for later interest in music. (Kukkamäki 2002, 19, 22–25.)

A song can also work as a transitional object to a young child whose symbol function has already developed. When the mother is away, the child feels secure when singing for example the same lullaby as his/her mother did (Kurkela 1994, 459–460). Lehtonen has pointed out that the theory of transitional phenomena developed in the 1960s by Winnicott has in many cases been used to explain emotional impact in music especially because of its entertaining or loneliness - and anxiety - diminishing function.

Early negative criticism about musical achievement as a child may have led many people to abandon their singing or playing (Sundin 1989, 160; Ruismäki 1996, 404-405). Obviously self-concept in music is extremely vulnerable because of unconscious conflicts in early childhood and fear of authority. This makes the individual interpret the criticism of a teacher or parent as highly negative, even as a punishment. Lehtonen (1996, 20) remarks it is also possible to deeply hurt a person who performs or talks about music. In such cases the person may entirely deny music and its emotional meaning for him/herself. Music educators in particular should be aware that considerable discretion is required in human relationships in their daily work.

Music experiences in Finnish folk tradition and autobiographies

Finnish folk poetry singing has been an essential element of the *Kalevala* tradition as the poems were orally transmitted from one generation to the next. If we literally interpret the beginning poem of *Kalevala*, it becomes evident that the fathers sang when at work, but the mothers also taught their children to sing, when they were busy in the house.

These my father sang aforetime/ As he carved his hatchet's handle
And my mother taught me likewise / As she turned around her spindle...
(Kalevala 1:37-40, transl. W. F. Kirby)

The childhood musical experiences of Finnish people have been analysed from autobiographies, which describe them retrospectively (Eskola 1998, 19-22). Chronologically considered, the meaning of music for human life begins in the memories of the childhood home. In this phase the most important thing is to hear the mother singing, most generally during housework, and traditionally in the countryside even when milking cows. The repertoire includes mostly hymns, children's songs, and patriotic and folk songs.

The musical memories of fathers are clearly more often combined with an interest in playing an instrument. The fathers either played themselves after coming home from work or bought musical instruments for the home, such as a mouth organ, violin, or an accordion. A radio also brought music into the home. Other family members, siblings and grandparents might join in music making. Among the musical instruments found in homes the violin and wind instruments were previously more widespread than nowadays, whereas the piano, and the harmonium, and more recently the electric organ or synthesizer is more common today. In the questionnaire responses of younger people recorders, the melodica and the electric organ are mentioned. Also descriptions of piano lessons are frequently given (Jokinen 1998, 473-478; Hyry & Hyvönen 2002, 65-66).

Musical stimulation and the childhood home

To analyse and evaluate the musical stimulation provided at homes the American researcher Manny Brand (1985, 40-45) devised a measuring instrument HOMES (Home Musical Environment Scale). It helps parents to assess and improve the musical stimulation of their own home, while researchers can use it to sharpen their knowledge about children's musical development. The strongest musical stimuli in the home musical environment proved to be parental musical involvement with their child (singing and the playing of musical instruments) and a positive parental attitude towards music (Brand 1986, 114-119).

Earlier research indicates clearly how the home's most important musical stimuli depends on the typical features of each musical environment. If musical instruments and an interest in playing are usual, their significance becomes emphasized. If other musical stimuli are not provided, singing, for example, can contribute to later musical achievements.

Practising playing develops a child's innate skills perhaps more than any other activity, although these skills later become an integrated entity for the player him/herself. Gardner (1993, 73-278) has noted that playing skill consists of seven types of talent; according to Vikman (2001, 48-51) in piano playing these dimensions are as follows:

linguistic – comprehending the meaning of words and rules
 logical-mathematical – understanding the theoretical structure of music
 spatial – perceiving the structure of sound material and identifying note-reading (Karma 1986, 50-52)
 bodily kinaesthetic – controlling motor coordination in finger and body movements
 musical – expressing oneself musically in rhythm, melody, harmony, and timbre
 intrapersonal – analysing one's own emotions, developing better self-esteem and motivation
 interpersonal – understanding others in group playing.

In Finland children even before school-age can begin their musical studies in the music institutions founded in the 1950s and at music playschools connected with them. Later through entrance examinations children can pass on to study their own main instrument in addition to school studies. The music institution network nowadays covers the entire country. Nowadays there are approximately 150 music institutions and music schools and they have in all 86 000 students (Partanen 2001).

Although the importance of the home's musical environment early on is emphasized, this should not diminish the significance of music education given in day care centres, kindergartens and school. Nowadays, the media are also important in the children's sound environment. However, it is useful for parents, kindergarten teachers, and educators to know about the connection between parental musical attitudes as well as the home's everyday musical activities and children's musical development (Brand 1986, 118-119).

Self-concept in music

Self-concept in music is formed in the interaction between an individual and his/her environmental experiences in musical and non-musical situations. In Figure 1 self-concept in music is shown as part of the hierarchic organisation of an individual's general self-concept.

The upper levels of self-concept are more stable than the lower ones. Thus for example it is possible by music instruction and musical interests to strengthen the base level of self-concept in music.

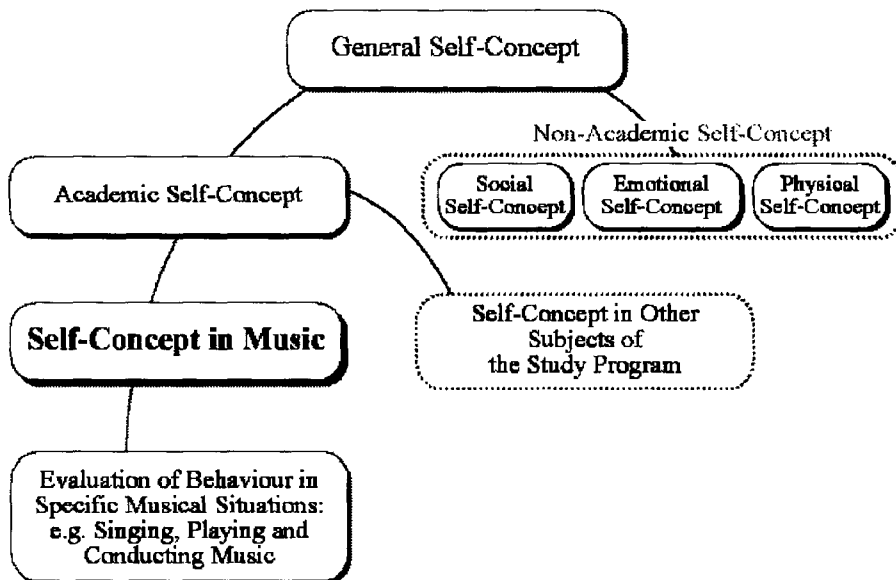


FIGURE 1: Self-concept in music in the hierarchic organisation of the general self-concept applying Shavelson, Hubner, and Stanton (1976, 413)

In this study self-concept in music is defined as a pre-service teacher's conscious perception of him/herself and of his/her possibilities as a music student within the department of teacher education, as well as his/her perception of him/herself as an amateur musician and a music teacher in training. It is a part of one's academic self concept, which moreover is a part of his/her general self-concept (Tulamo 1993, 52, 70-72).

Hypotheses

In this article the student teachers' musical stimulation environment in early childhood is examined in relation to self-concept in music and musical progress in teacher education. The hypotheses are:

- 1) Musical environment in childhood of student teachers is related to their self concept in music.
- 2) The childhood musical stimulation environment contributes to musical progress in teacher education

Methodology

Instrument

Research data about early childhood (under 7 years) musical experiences and the musical stimulation environment were gathered with the aid of a questionnaire. The questions posed concerned early childhood singing, playing, music listening and music instruction, as well as the home's interests and appreciation of the arts. Self-concept in music was analysed according to the theoretical framework provided by Shavelson, Hubner, and Stanton (1976). The base level of general self-concept (see Figure 1) was operationalised in specific musical situations. The questions relating to self-concept in music included 54 statements (Likert-scale). They consisted of activities the subject objected to at the base level (singing, playing, music conducting and performing) and generally related to music (musical taste, music listening, concept of one's own musicality) and music teaching.

The scores of singing and playing method courses were chosen as indicators of musical progress in teacher education.

Subjects

Research subjects (N=660) comprised all second year pre-service elementary teachers enrolled in 10 Finnish teacher education institutes. It was an entire research because of the most reliable results. The students were 20-25 years old and their number varied between 51 and 70 in different teacher education institutes. Their aim was to graduate as Masters of Education, which qualifies them as class teachers. The subjects' childhood localities covered the country and were thus representative of Finland as a whole.

Data collection and analyses

Research material was collected with a questionnaire. Items measured covered student teachers' early childhood music experiences and self-concept in music at their adult age. Some of the students filled up the forms during their music classes, in some institutions the contact lecturers distributed questionnaires and organized their return to the researcher. 590 questionnaires were returned comprising 88.6% of the subjects, an extremely high figure. There were 222 men and 368 women in the student group.

The data collected with the questionnaire included both quantitative and qualitative information. The qualitative information was received through semi-structured questions. In quantita-

tive questions evaluation was made according to the 5-step Likert Scale. Quantitative data was analysed descriptively using factor analysis and Pearson correlations. Qualitative material was analysed according to content analyses and interpretatively.

Results

The structure of self-concept in music

The structure of self-concept in music was analysed by means of factor analysis (varimax – rotation). Self-concept in music was not structured to interpretative factors until five statements of a more general nature were excluded. These five statements constituted a different sector of self-concept in music called “the general concept of one’s own musicality” (the sum variable). This sector represents the top concept of the basic level (see Figure 2). The conclusion of 5 factors explained 30.8 percent of total variance. These 5 factors were named sectors of self-concept in music as follows: music conducting, musical taste, playing, singing, and music listening.

TABLE 1. The factors of self-concept in music (N=590)

Factors	Content of factor	1	2	3
I	music conducting	8.13	15.9	51.6
II	musical taste	2.50	4.9	15.9
III	playing	2.10	4.1	13.3
IV	singing	1.37	2.7	8.8
V	music listening	1.64	3.2	10.4
		15.74	30.8	100

1 = eigenvalue

2 = relative eigenvalue percent (%)

3 = factors’ percental proportion of the summed value

The first factor explained half of the total variance of the data. Its four variables are essentially linked to conducting the children’s choir and orchestra (Factor loadings .74-.59). The students’ preferences to different sorts of classic or pop/rock music are the content of the six variables (.67-.44) of the second factor. All the nine variables (.62-.41) of the third factor are concerned with learning experiences in piano playing. Their loading rates are negative and they determine the experience of anxiety. All the seven variables (.73-.32) of the fourth factor are concerned with singing. The variables express the extraversion of singing (e.g. openness, boldness, performing assurance, and willingness). The students’ relation to music listening constitutes the content of all the variables (.55-.31) of the fifth factor. The entire structure of self-concept in music is presented in Figure 2.

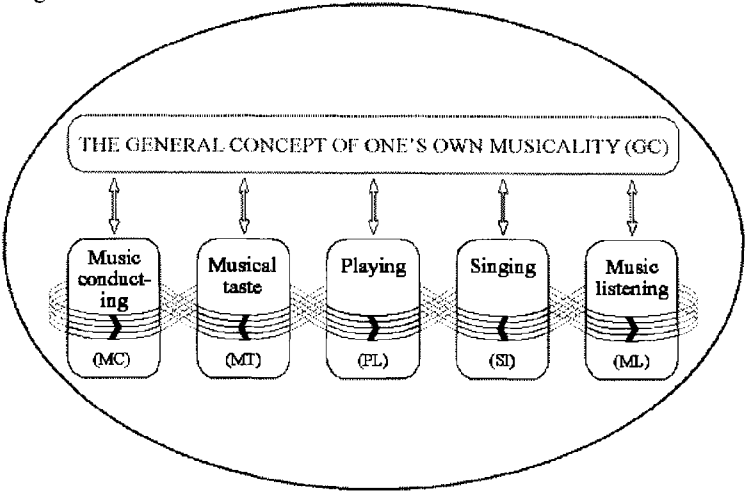
The quality of student teachers’ self-concept in music was evaluated by a positive-negative scale. According to the means, the order of sectors of self-concept in music is as follows:

*music listening	3.9
*singing	3.4
*the general concept of one’s own musicality	3.1
*playing	2.7
*music conducting	2.1

Unlike the other sectors musical taste was examined only as a value-free liking for either classical or pop/rock music. A slight preference (M=3.2) in favour of classical music was expressed. Student

teachers’ self-concept in music proved positive, because three of its five sectors were located on the positive side of the dimension. The basic reasons behind the negative attitude towards playing and music conducting seemed to be insufficient musical skills.

Both of the research hypotheses are verified in our research. They are surveyed in detail in the following sections.



Abbreviations:

- GC = the general concept of one’s own musicality, sum variable 0
- MC = the factor of music conducting I
- MT = the factor of musical taste II
- PL = the factor of playing III
- SI = the factor of singing IV
- ML = the factor of music listening V

FIGURE 2: The structure of pre-service elementary teachers’ self concept in music by sectors

The stimulation environment and the musical experiences of childhood

Interests and art appreciation in the home

TABLE 2: The most common interests of student teachers’ childhood homes (N= 590)

Interests	M	s
sports	3.43	1.26
gardening	3.14	1.28
tourism	2.89	1.11
arts	2.62	1.24
raising the standard of living	2.37	1.02
sciences	1.77	0.96

TABLE 3: The appreciation of art forms in childhood homes (N=590)

Art form	M	s
art of crafts	3.68	1.06
music	3.53	1.14
literature	3.40	1.18
art of physical education	3.24	1.22
visual arts	2.92	1.18

As it is shown in the tables 2 and 3 music was the second most appreciated art form at home.

Singing experiences

To gain data on the singing stimuli of musical experiences in childhood, student teachers were asked how often they were sung to in childhood, and who these singers were been. Evaluated by a 5-step Likert scale the mean of the amount of singing was 3.37 ($s=1.07$). Of the homes which participated in the research 17 percent had given very much and 20 percent much vocal stimuli to their children. On the other hand, 3 percent of homes had never sung and in 20 percent of homes singing had been rather rare. According to earlier studies (e.g. Kelley & Sutton-Smith 1987) scarcity of singing can lead to insecurity in the child's later music achievements. Precisely these pupils should receive tactful instruction from their teachers.

Parents, siblings and others (grandparents, other relations, guests, etc.) had sung with student teachers in their childhood homes. In the results attention is paid to the parents, because in theory they have had most time to sing together with their children (Table 4).

TABLE 4: Parents singing with student teachers in their childhood homes (N = 590)

Singers	f	%
both of the parents	179	30
mother	279	47
father	58	10
<u>neither of them</u>	<u>72</u>	<u>12</u>
total	588	100

The results indicated that the mothers sang to their children in clearly more cases than the fathers. Both of the parents sang in a third of the students in childhood. Most of the respondents had usually enjoyed singing (4.00, $s=1.03$). Only 2 percent of the subjects had not liked singing at all for some reason or other.

Of the respondents 66 percent (N=590) remembered their childhood songs by name. A half of the mentioned songs were well known children's songs. The rest of the songs consisted of light music, songs and pop/rock music as well as classical music. Usually these songs were hits of past decades, which the parents and grandparents had learned in their time.

Inquiries about invented own songs were designed to assess the amount of possible creative activity among student teachers. The age phase when songs might be invented was not directly inquired. It is known that 3-5-year-old children generally composed potpourri or imaginative songs. They often cannot remember these themselves but with reasonable certainty the parents have later told them about it. More than a half of student teachers announced that they had invented songs.

Playing stimuli

Musical instruments are an essential part of the musical stimulation environment of the home. Most often they indicated either active music playing or at least an interest in music. The results showed both the amount and the type of instrument. (Table 5)

TABLE 5: The type of musical instruments in the childhood home (N=590)

Type of instrument	f	%
piano	241	31
guitar	131	17
school or toy instruments	125	16
harmonium/ electric organ	97	13
strings (violin, cello etc.)	69	9
accordion	59	8
<u>wind instruments (clarinet, trumpet etc.)</u>	<u>50</u>	<u>6</u>
Total	772	100

The piano was overwhelmingly the most common of all musical instruments. If we combine this figure with harmoniums and electric organs, over a half of respondents could at least in theory begin as a child to practise a playing skill. In a half of childhood homes there were 1-2 music instruments, in a quarter of them there was 3-9 instruments. A quarter of the homes were quite without instruments.

The playing interest of childhood homes was examined also on the grounds of the number of family members who played instruments (Tables 6 and 7).

TABLE 6: The number of persons who played in student teachers' childhood homes (N=590)

Number of persons	f	%
3-7	18	3
2-3 (of which the third is the respondent)	122	21
1-2 (of which the second is the respondent)	224	38
1 (only the respondent him/herself)	47	8
0	24	4
<u>no instrument at home</u>	<u>155</u>	<u>26</u>
homes total	590	100

The results proved that 70 percent of student teachers' families had played instruments as a hobby. However, the amount of playing could not to be estimated from the answers. Some of the respondents had modified their responses by rejecting the words "but rarely".

The results about parents' playing interests proved that both of the parents played at home rather rarely (Table 7). Fathers participated distinctly more often in playing interests, contrary to the case of singing with their children (see Table 4). This research conforms to earlier Finnish research (Jokinen 1998, 473-478).

TABLE 7: The number of parents that played in childhood homes (N=590)

Player	f	%
both of the parents	29	5
father	114	19
mother	72	12
<u>neither of them</u>	<u>375</u>	<u>64</u>
total	590	100

In this research material fathers played a greater variety of musical instruments than mothers, who mostly concentrated only on the piano or harmonium. Fathers' often played guitars, mandolins, mouth-organs and accordions, as well as violins and the piano. Children think that their fathers can play "almost anything" or "every instrument".

Music listening stimuli

Besides live music at home (singing and playing stimuli) subjects also listened to music on the radio and to different sound systems. What follows is an examination of the amount of the use of radios, tapes and records as well as the stimuli provided by them.

The results proved that in student teachers' childhood homes music was often listened to on the radio ($M=3.9$). Although music listening has been considered one of our most widespread pastimes, Seppänen (1993, 88) remarks, however, that some qualifications need be made, as music is primarily used as background rather than attentively listened to (Arjen kulttuuria 1993, 88).

Responses also revealed that 92 percent of students was able to play records or cassettes at home. 66 percent of the respondents remembered by name the records or types of music that they had listened to. The remembered musical titles can in broad outline be divided into five groups (Table 8).

TABLE 8: The type of records or cassettes listened to in childhood homes (N=390)

The type of music	f	%
Entertaining, popular, and traditional dance music	189	30
rockmusic	108	17
popmusic	98	16
classical music	61	10
<u>children's music</u>	<u>165</u>	<u>27</u>
total mentions	621	100

Entertaining and rock/pop music was listened to more than children's music or classical compositions.

Early childhood music instruction experiences

Our research also assesses how frequent and efficient music instruction had been in student teachers' childhood, what they remembered about its content and how they had personally experienced it.

One third of student teachers (N=590) had been given music instruction at Sunday school or as part of church life. Another third participated in the music lessons of day care centres and 7 percent of these had in addition been instructed at music play school. The final third had no music instruction at all in their childhood.

Taken as a whole the early childhood music education was considered to have been very favourable. The average of positive experiences derived from the opinion poll was rather high ($M = 4.1$, $s=.81$).

Only 69 percent of those who participated in music instruction (N = 386) answered the question about the possible content memories of music lessons. They gave one to three comments about the contents, methods and sometimes also the atmosphere. The majority of the memories were songs, psalms and singing games (82%). Of the mentioned 10 percent was applied to playing and the rest to dramatising songs and different kind of performances. Most of the individual memories emphasised the cosiness and joyfulness of music lessons, revealed in the following comments:

- * Warm moments, joy of singing
- * The lessons were too short.
- *The songs were cheerful and rhythmical

The child's emotional sensibility and empathy with the content of the song was revealed in such statements as "sometimes a sad song made me cry". Another respondent remembered "singing games that touched the child's experience world". The experiences (comp. Csikszentmihalyi 1996, 72-75) of putting on short performances in a group had been remembered as positive achievements. They were described for example by the following responses:

- * The bell struck five already – I was a horse (a Finnish singing game)
- * I was a Star Boy and a Knight in the Star Boys. (a historical song play)
- * I played the triangle in a kindergarten performance.

Accompanists and accompaniment were positively remembered. The expressed memories about early childhood music lessons were single comments or short references. However, they expressed features about the world of music education that the child had perceived and recollected at that age phase. Besides, they describe the first elements of a developing self-concept in music.

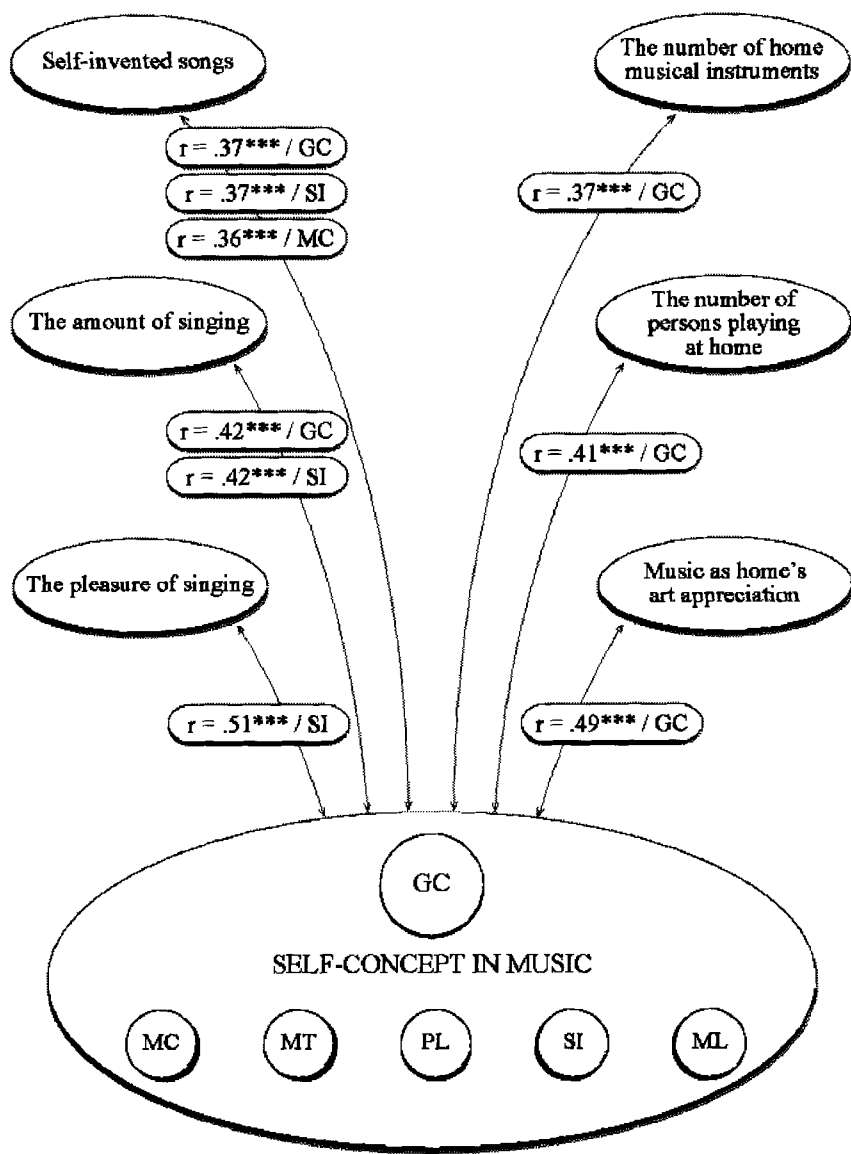
The connections of childhood stimulation environment and musical experience variables to self-concept in music

This research analysed the connections of the childhood home's stimulation environment and musical experience variables to self-concept in music using Pearson correlations. The self-concept in music variables consisted of five factors obtained by factor analysis and the general concept of one's own musicality (see figure 2).

Correlation coefficients indicated that almost all of the examined variables of childhood musical experiences contributed to self-concept in music at least to some amount. However, there were many low statistically significant correlations because of the big number of subjects but they are not meaningful in practice. This review concentrates only to the strongest correlations of them.

Stimulation environment

The results of correlation analyses proved that of all the 'interests' variables mentioned in table 2 the art interests have strongest connections to self-concept in music (.31***). Of the art forms mentioned in the table 3 the appreciation of music was most strongly (.49***) connected to the student teachers' self-concept in music (Figure 3).



Abbreviations:

GC = the general concept of one's own musicality, sum variable 0
MC = the factor of music conducting I
MT = the factor of musical taste II
PL = the factor of playing III
SI = the factor of singing IV
ML = the factor of music listening V

FIGURE 3: The strongest correlations between the sectors of self-concept in music and the childhood home's stimuli environment and musical experiences variables

Musical experiences

The connections of the student teachers' childhood musical experiences were analysed in relation to singing, playing, and music instruction under the age of seven. The highest correlation between childhood music experiences and adult age self-concept in music (see figure 3) was that between the pleasure of singing and the sector of singing (.51). The next strongest in connection are the amount of singing (.42) and the number of persons playing at home (.41). The persons who play instruments in the home also support the development of a strong self-concept in music, likewise the number of musical instruments in the home and the possible existence of a piano or other keyboard instrument (.35).

The memories and experiences of early childhood music instruction (.33) at Sunday school, day care centres and music play school are more important than the amount (.16) from the point of view of self-concept in music. Favourable experiences clearly contribute to the development of positive self-concept in music.

The connections of the childhood musical stimulation environment to musical progress in teacher education

This research also analyzed the correlations between early childhood musical experiences and musical achievements at adult age. The results proved that almost all of the variables of childhood singing and playing stimuli correlate statistically very significantly with the musical progress in teacher education (Table 9). The strongest correlations were between the pleasure of singing and the score for singing (.44) and likewise a piano (or other keyboard instrument) at home and the score for playing (.47). The comprehensiveness of childhood musical stimuli emerges from the connections covering both singing and playing progress. Generally the correlations of singing stimuli are higher with the score for singing and the correlations of playing stimuli correspondingly stronger with the score for playing. Only strings and school or toy instruments correlate slightly more strongly with singing skill.

TABLE 9: The correlations between student teachers' childhood musical stimuli background and the scores for singing and playing in music method courses

	r/score for singing	r/score for playing
Singing variables		
the amount of singing	.36***	.30***
the pleasure of singing	.44***	.30***
songs remembered by name	.26***	.20***
self-invented songs	.28***	.24***
The playing variables		
the total number of home musical instruments	.26***	.29***
the piano or other keyboard instruments at home	.28***	.47***
stringed instruments at home	.18***	.14**
wind instruments at home	n. s.	.09*
school or toy instruments at home	.11*	.09*
the number of persons who played at home	.29***	.38***
remembered played pieces	.22***	.24***

The research results obtained are along the same lines as those of Martin and Gordon in the reports by Brand (1985; 1986) as well as Shuter-Dyson and Gabriel (1981). In these studies from the 1980s, however, correlations with the home background are assessed with regard to musical achievements at the school phase.

Discussion

Of the home's background variables the developing of a positive self-concept in music is especially promoted by art interests and music appreciation. Concerning the childhood home's musical stimuli the pleasure and amount of singing correlate with positive self-concept in music. The most important playing variables are the number of persons who play instruments and the number of instruments in the home. Likewise, the favourable experiences of music instruction at the age before seven years form a positive self-concept in music.

Childhood singing and playing experiences at home clearly contribute to the musical progress in teacher education. The scores for singing and playing are very close to those for self-concept in music. The importance of the teacher's singing and playing skill to his/her young listeners according to our study proves to be greater and more widespread than supposed.

In the Finnish school system music has had an important role in the curriculum since the founding of the elementary school system. In both kindergarten and primary school teacher education music has been considered an important part of schooling. Recently the proportion of music in Finnish kindergarten and primary school teacher education has diminished.

Anyhow, our research results show quite high correlations between childhood musical stimulation environment and scores for singing and playing given during teacher education. These results support the demand to intensify music education in both kindergartens and primary schools, along with the need to increase music studies in teacher education.

A positive self-concept in music is a prerequisite of the music teacher who has a balanced personality and who trusts in his/her skills and work (Burns 1982, 254; Korpinen 1983, 61-64). The essential factor here is the quality of the teacher's musical skills when leading children into the world of music. A teacher's uncertainty in his/her own musical ability prevents a positive interaction with children in music class. Oreck's research (2002) amongst American teachers showed that of all personal characteristics self-image and self-efficacy were most strongly connected to using arts in teaching.

This research has been based on the childhood world of music at home and in schools. However, other influences affect the childhood sound environment, such as the media in their different forms, and the soundscapes of computer games, and music on the internet play an increasing part in children's everyday life. Sintonen speaks about the firm connection of music to the environment (Sintonen 2001, 152). Music ecology (Harley 1996) also pays attention to negative factors in a child's sound environment and tries to eliminate harmful phenomena such as sound pollution.

This study emphasises the importance of early childhood in musical development, and raises the question whether musically-speaking it is not the most important period in an individual's life. According to Majjala's research (2003) 11 of the 12 top musicians who have had international careers began musical training at the age of 3-5 years. Music studies which are begun in early childhood demand parental support and a strong commitment to their children's interest until the age of puberty. (Majjala 2003, 8; Kemp 1981, 4; 2000, 51-52, 55-56.)

The results of this research support the intensifying of music education in day care centres and kindergartens as well as in the earliest grades of the comprehensive school. Among student teachers there should be a sufficient number who have studied music since their early childhood and are willing and able to transfer a precious cultural heritage to the following generation.

As realised in earlier research (Gardner 1993, Edwards & Willis 2000, Vikman 2001, Nurmilaakso 2004) music practising supports children's other developing abilities, for example in languages and in mathematics. On the basis of our research results we have put together the following principles for the European early childhood music education:

- Sing to the child
- Discover the song's atmosphere and let the song create security
- Let the child find surrounding sounds, review them and find the meaning of silence
- Let the child invent his/her own songs and express music through movement
- Play to the child
- Give the child the opportunity to study the instrument that he/she wants
- Let the child listen to different kinds of music and learn to understand it
- Allow the child to find his own music
- Let the singing, playing and making of music create experiences and bring memories
- Let the child experience the joy and delight of making music
- Let the music connect children to their parents and to each other
- Let the music connect nations and cultures with each other

Along these principles it is important to provide a musical environment in homes, day care centres, and schools to support children and families. These principles contribute the development of a positive self-concept in music, and arouse the love of music in every European child.

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