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MŪZIKAS ZINĀTNE ŠODIEN: PASTĀVĪGAIS UN MAINĪGAIS

Zinātnisko rakstu krājums

VII

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Musical Culture in the Family and the Music Aptitude and Competence Observed among Early School-Age Children on the Basis of Research Conducted in Poland

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Abstract

The paper consists of: introduction, methodological part, presentation of the research results, and conclusions. Its content is focused on the connection between musical culture in the family and the music aptitude and musical abilities (perceptual, vocal and improvisation) demonstrated by children at early school age (1st to 3rd grade). In this research, musical culture in the family is defined through various forms of musical activity undertaken for the sake of children and in their environment, for instance, singing, learning songs, playing instruments, listening to music and participating in concerts together. Musical culture is additionally shaped by parents, who either work with music or are outside of the field, thus parents' education also plays an important role. The author of this paper applied the testing and questionnaire-based strategy of quantitative empirical research. The qualitative and quantitative analysis of the results was conducted based on singled out groups of pupils with the highest and the lowest scores in the Edwin Elias Gordon's IMMA (Intermediate Measures of Music Audiation) test.

Key words: The connection between musical culture in the family and the music aptitude and musical abilities of children at early school age, tests evaluating musical abilities and music aptitude for pupils attending primary school grades 1–3.

Introduction

Musical culture in the family can be a factor that helps in the development of music aptitude and abilities among children. What is also important is the level of parents' education because people with better education are usually more aware of the family environment's impact on children's general

development, including their musical development. They are also more often willing to engage in the activities that facilitate this process. However, one must keep in mind that family environment, especially when it comes to shaping children's music competence, has an indirect influence on their development by introducing children to music in various ways, which creates a good basis for music education in school and reinforces the school's impact. These observations are confirmed by the results of the author's previous research on the connection between parents' education and their opinions concerning the musical development of pre-school children. The above-mentioned research revealed a statistically highly significant near-moderate correlation between mothers' general education and their opinions concerning children's musical development, meaning that people with better education were more often aware of the need to facilitate this development (cf. Bonna 2005a).

Reference literature highlights the importance of family's socioeconomic status when it comes to children's musical development. Edward L. Rainbow, who assessed the socioeconomic status based on the head of the family's education and profession, noticed a weak correlation that indicated a clear, though small, connection between that status and the facilitating role of the family. These findings may corroborate the popular observation that musical activity at home is usually related to the socioeconomic status but a high status is not always tantamount to positive attitude towards music (Shuter-Dyson, Gabriel 1986: 207). The correlation between the family's socioeconomic status and parents' education and the level of children's music aptitude was found in Kinga Lewandowska's research (Lewandowska 1991). Meanwhile, Gabriela Karin Konkol proved that the family's socioeconomic status has a statistically significant correlation with great achievements by children and youth attending music schools. The families that participated in the author's research were dominated by people with higher education who placed importance on intellectual work and child education. Other important factors included the musical culture of the family environment, attention to exercises and progress at school as well as the support for the child's musical development (Konkol 2002: 91). Konkol's results corresponded with Maria Manturzevska's previous research which had shown that most children attending music schools in Warsaw came from educated families with certain musical culture (cf. Manturzevska 1974).

Family plays an important role in the development of child's music aptitude, musical abilities, interest in music as well as musicality and its influence may help to establish a creative approach to music (Bonna 2005b, p. 255;

cf. Bonna 2002; Manturzevska 1990; Chin, Harrington 2007; Sierszeńska-Leraczyk 2008). Maciej Kołodziejski and Paweł Adam Trzos (2013: 172) stress that family is a natural environment for child's education and therefore its members are the first people who introduce the child to musical culture (cf. Trzos 2014). What is also stressed in the discussions about family's impact on the child's musical development is the importance of factors that shape musical culture, such as a musically rich family environment and the socioeconomic status that facilitates child's music-related experience and interests. Another vital part of this process is the musical atmosphere at home which is determined by the preferred forms of musical activity of the parents, siblings and other people frequently interacting with the child. Such forms of musical activity in the family include sing-alongs, playing musical instruments, listening to music, participating in concerts and engaging in music/dance games with children. Listening to the parents singing and playing instruments is of particular importance. The other factors that facilitate child's musical development include parents' music education, the access to a musical instrument at home, the ability to play an instrument and the above-mentioned socioeconomic status of the family (Kamińska 1997: 74–80; cf. Shuter-Dyson, Gabriel 1986; Manturzevska 1990).

Edwin Elias Gordon, the author of the music learning theory, places a particular focus on the need for the family environment's early involvement in the child's musical development. He notes that the key part of musical influence is the child's contact with live music, especially through singing and playing instruments (cf. Gordon 1997, 1999a, 2001; Kołodziejski 2008b; Bonna 2013; Bonna, Trzos, Kołodziejski 2014). While conducting the research on how music aptitude (evaluated using the MAP¹ test) and musical achievements (evaluated using an early version of the Iowa Tests of Music Literacy) are connected to environmental factors, Gordon discovered weak correlations between mother's and father's playing an instrument or singing and the level of child's music aptitude. Higher correlation coefficients, indicating a stronger correlation between these and other environmental factors (parents with music education, access to a piano, listening to music as well as musical activity at home), were found in relation to musical achievements (Shuter-Dyson, Gabriel 1986: 205–206).

During the research on environmental factors that influence preschool children's music aptitude and perceptual musical abilities, the author (Bonna 2005a: 171–172) found low correlation coefficients between learning songs

¹ MAP – Musical Aptitude Profile.

and the access to musical instruments at home and the results of her own test of musical achievements. When the author singled out 10% of the families with the highest score in terms of the involvement in the child's musical development, a moderate correlation was revealed between mothers' music education and her ability to play an instrument and the children's music aptitude. Other low correlation coefficients showed a statistical correlation between the children's music aptitude and fathers' music education and his ability to play an instrument as well as the access to musical instruments at home, siblings playing instruments and family music-making. These families demonstrated weak correlations between the children's perceptual musical abilities and the environmental factors such as dancing with children and working with kindergartens to teach music to children.

The research conducted by Inkeri Ruokonen and Maie Vikat (2005) showed a connection between musical activities in the family environment and the level of music aptitude among children aged 6–8 as well. Family's involvement also proved to have a positive impact on pupils' musical achievements in the research carried out by John A. Sloboda, Derek G. Moore, Michael J. Howe and Jane W. Davidson (1996: 399–412). The researchers established that parents whose children had enjoyed great achievements from an early age were involved in the child's musical instrument lessons, provided support for their children and were interested in music themselves.

The results of Agnieszka Weiner's research conducted among early school-age pupils (2010, pp. 285–312) are interesting as well, indicating a highly significant, though weak, correlation between pupils' music competence and the level of family's cultural life and its economic status. In addition, there is a near-moderate correlation between parents' education and children's music competence.

Other noteworthy results are found in Barbara Kamińska's (1997: 156–157) research on the connection between the level of vocal competence among children and youth aged 6–17 and the musical conditions provided at home in the first years of the child's life. Moderate positive correlation coefficients show that the development of child's vocal competence should be associated with the family's appreciation of music and its presence in the family life. Moreover, a moderate and highly significant correlation was found between early experience with singing in the family environment (e.g. early introduction to singing, proper signing patterns, signing to and with the child, encouraging the child to sing, praises, creating opportunities for singing, correcting singing errors) and children's vocal competence. This tendency was further corroborated by a research carried out under the author's supervision (cf.

Bonna 2012) which concerned the family's role in developing early school-age children's vocal competence.

Methodology

The purpose of this research was to define the relationship between the family's musical culture and the music aptitude and competence observed among early school-age children.

As part of the research procedure, the author formulated the main problem, which involved finding the answer to the following question: What is the connection (if any) between the family's musical culture and the music aptitude and competence among pupils aged 7–9? The main problem was divided into the following sub-problems:

1. What is the correlation (if any) between parents' education and music aptitude/competence test scores achieved by pupils?
2. What is the correlation (if any) between the family's musical culture and music aptitude/competence test scores achieved by pupils with high/low tonal aptitude?
3. What is the correlation (if any) between the family's musical culture and music aptitude/competence test scores achieved by pupils with high/low rhythm aptitude?
4. What is the correlation (if any) between the family's musical culture and music aptitude/competence test scores achieved by pupils with high/low general music aptitude?

The empirical quantitative research methods applied by the author involved a questionnaire and a test. The questionnaire was used to obtain the information on the general level of parents' education and the family's musical culture, which for the purpose of this research was defined through various forms of musical activity undertaken with varied frequency for the sake of children, for instance singing, learning songs, playing instruments, listening to music and participating in concerts together. Musical culture was also influenced by the parents' amateur or professional involvement in music.

In order to evaluate pupils' music aptitude, the author applied Gordon's IMMA (Intermediate Measures of Music Audiation) test. The test is used to diagnose two basic areas of music aptitude development – tonal and rhythmic – which Gordon refers to as audiation abilities (cf. Gordon 1998b, 1999b). The test is divided into two sub-tests: Tonal test, and Rhythm test. Meanwhile, in order to diagnose pupils' perceptual musical abilities, the author applied Gordon's ITML (Iowa Tests of Music Literacy) test, Weiner's TPMA (Test

of Perceptual Musical Abilities) test and her own SPUM (from Polish: *Sprawdzian Percepcyjnych Umiejętności Muzycznych* – Test of Perceptual Musical Abilities) test. The TPMA test is designed for pupils attending the 3rd grade and it is used to diagnose important areas of music perception and the related abilities within the following scope: I. Perception of the constructive elements of a musical piece; II. Identity in music, style sensitivity; III. Associating music with non-musical contents, sound sensitivity (Weiner 2007: 41; cf. Bonna 2014).

Gordon's ITML test can be used to evaluate the basic musical achievements connected with the understanding of tonality and rhythm. For the purpose of this research the author applied the auditory perception sub-test, which is included in the first part of the said test. It verifies pupils' perceptual abilities when it comes to the auditory identification (audiation) of major and minor tonality in short melodic phrases as well as the duple and triple meter in rhythmic pieces (cf. Gordon 1991, 1994; Kołodziejski 2014). Meanwhile, the SPUM test was applied to evaluate music competence among children attending the 1st and the 2nd grade. Using this research tool, the author evaluated the children's auditory ability to differentiate sound pitch, their perception of consonance, individual sounds, the contour and the tonal centre of melody as well as the ability to identify the structure of musical pieces they heard (AB, ABA). In order to evaluate the pupils' rhythm improvisation readiness, the author applied Gordon's RIRR (Rhythm Improvisation Readiness Record) test. It comprises 40 pairs of exercises, where each pair has a specific rhythm structure that is played using the same simple melody line. Pupils are then asked to answer whether the two motifs in each pair sound the same or not (the possible difference is in the rhythm) (Gordon 1998a: 34). In order to diagnose the pupils' vocal and improvisation abilities, a multiple-point estimated scale was developed (see Gordon 1986: 14). It was used by competent judges who evaluated the intonational, rhythmic and expressive/technical correctness of children's performance of a popular Polish song titled *Stary niedźwiedź*, whose melodic and rhythmic structure corresponds to the performance abilities of early school-age children. This scale was also used to evaluate the children's tonal and rhythm improvisation abilities.

The correlations between the variables were described using Spearman's rank correlation coefficient (r_s).

The research was conducted in 2010 and 2011 at the European Union Primary School No. 46 in Bydgoszcz, Poland. The participants were 131 pupils from Grades 1–3 and their parents.

Results

In terms of the research, it seemed interesting to clarify the connection between parents' education and the family's musical culture. The analysis showed a weak ($r_s=0.27$) but highly significant ($p=0.002$) correlation between musical culture and mothers' education. This proves that when their level of education improves, the family's musical culture improves as well. This correlation was clear, though small. Meanwhile, no evidence was found for a statistical correlation between the family's musical culture and the level of fathers' education ($r_s=0.15$; $p=0.097$).

In order to define the relationship between parents' education² and the level of pupils' music aptitude, their perceptual, vocal and improvisation abilities, as well as their rhythm improvisation readiness, the strength of correlation between these variables³ was analyzed (table 1).

Table 1.

Spearman's correlation coefficients between the parents' education and the pupils' music aptitude and competence

Test	Mothers' education	Fathers' education
1	2	3
IMMA	$r_s=0.10$	$r_s=0.12$
Total score	$p=0.228$ N=131	$p=0.161$ N=123
ITML	$r_s=0.06$	$r_s=0.09$
Total score	$p=0.49$ N=131	$p=0.306$ N=123
RIRR	$r_s=0.14$	$r_s=0.26$
	$p=0.101$ N=131	$p=0.003$ N=123
SPUM	$r_s=0.08$	$r_s=0.12$
	$p=0.422$ N=88	$p=0.285$ N=81
TPMA	$r_s=0.18$	$r_s=0.21$
	$p=0.249$ N=43	$p=0.191$ N=42

² The relationship between both parents' education was found to have a statistically highly significant ($p<.0001$), moderate correlation ($r_s=0.50$).

³ The degree of relationship between variables was adopted from Joy P. Guilford (see: Nowaczyk 1995: 105).

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1	2	3
Vocal competence	$r_s=0.38$ $p<.0001$ $N=131$	$r_s=0.32$ $p=0.0004$ $N=123$
Tonal improvisation	$r_s=0.22$ $p=0.010$ $N=131$	$r_s=0.57$ $p=0.527$ $N=123$
Rhythm improvisation	$r_s=0.13$ $p=0.145$ $N=131$	$r_s=0.06$ $p=0.491$ $N=123$

Source: the author's own research

r_s – Spearman's correlation coefficient

$p \leq 0.05$ – significant difference

$p \leq 0.01$ – highly significant difference

N – the number of people

The research revealed statistically highly significant correlations: the correlation between mothers' education and the level of pupils' vocal competence was near-moderate ($r_s=0.38$; $p<0.0001$), while the correlation with fathers' education was weak ($r_s=0.32$; $p=0.0004$). The correlation coefficient in mothers' case indicates a significant correlation between the variables. In fathers' case, that correlation is clear, though small. Statistical dependencies indicating weak correlations were also found between fathers' education and the RIRR (Rhythm Improvisation Readiness Record) test scores ($r_s=0.26$; $p=0.003$) as well as between mothers' education and pupils' tonal improvisation ($r_s=0.22$; $p=0.010$). When it comes to the IMMA (Intermediate Measures of Music Audiation) test, the tests of perceptual musical abilities (ITML, SPUM, TPMA) and the rhythm improvisation tests, no statistical connection has been found between parents' education and children's scores.

In the next part of the research, the author aimed at defining the strength of correlation between the family's musical culture and the music aptitude and competence – i.e. perceptual, vocal and (tonal/rhythm) improvisation abilities as well as rhythm improvisation readiness – among pupils with high/low tonal aptitude, singled out based on the scores from the first part of the IMMA test (table 2).

Table 2.
Spearman's correlation coefficients between the family's musical culture and the test scores achieved by the pupils with high/low tonal aptitude (IMMA Tonal test)

IMMA Tonal test high level	Musical culture	IMMA Tonal test low level	Musical culture
1	2	3	4
IMMA Tonal test	$r_s=0.39$ $p=0.007$ N=45	IMMA Tonal test	$r_s=0.06$ $p=0.662$ N=45
IMMA Rhythm test	$r_s=0.15$ $p=0.35$ N=45	IMMA Rhythm test	$r_s=0.03$ $p=0.811$ N=45
IMMA Total score	$r_s=0.23$ $p=0.121$ N=45	IMMA Total score	$r_s=0.03$ $p=0.859$ N=45
ITML Tonal test	$r_s=0.13$ $p=0.315$ N=45	ITML Tonal test	$r_s=0.36$ $p=0.015$ N=45
ITML Rhythm test	$r_s=-0.09$ $p=0.533$ N=45	ITML Rhythm test	$r_s=-0.19$ $p=0.203$ N=45
ITML Total score	$r_s=0.04$ $p=0.778$ N=45	ITML Total score	$r_s=0.22$ $p=0.156$ N=45
RIRR	$r_s=0.20$ $p=0.178$ N=45	RIRR	$r_s=0.06$ $p=0.696$ N=45
SPUM	$r_s=0.31$ $p=0.105$ N=27	SPUM	$r_s=-0.15$ $p=0.443$ N=30
TPMA	$r_s=0.19$ $p=0.457$ N=18	TPMA	$r_s=-0.19$ $p=0.489$ N=15
Vocal competence	$r_s=0.39$ $p=0.008$ N=45	Vocal competence	$r_s=0.40$ $p=0.007$ N=45
Tonal improvisation	$r_s=0.56$ $p<0.0001$ N=45	Tonal improvisation	$r_s=0.14$ $p=0.35$ N=45

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1	2	3	4
Rhythm improvisation	$r_s=0.24$ $p=0.098$ N=45	Rhythm improvisation	$r_s=0.16$ $p=0.294$ N=45

Source: the author's own research

Statistically highly significant correlations were found among the children with high tonal aptitude. The highest moderate correlation ($r_s=0.56$; $p=0.0001$) occurred between the family's musical culture and the children's tonal improvisation abilities. In addition, a near-moderate correlation was found between the family's musical culture and the pupils' tonal aptitude ($r_s=0.39$; $p=0.007$) and their vocal competence ($r_s=0.39$; $p=0.008$). These results indicate that if parents have children with high tonal aptitude, if they are involved in music either as amateurs or professionals and if their family life includes activities such as singing, learning songs, playing instruments, listening to music and participating in concerts together with their children, then these parents play a significant role in improving their children's tonal aptitude as well as vocal and improvisation competence. The pupils with low tonal aptitude also revealed statistically significant and highly significant correlations. A moderate correlation ($r_s=0.40$; $p=0.007$) was found between the pupils' vocal competence and the family's musical culture. What is also noteworthy about this group is the weak correlation ($r_s=0.36$; $p=0.015$) between the auditory ability to differentiate major tonality from minor tonality (ITML Tonal test) and the family's musical culture. The results indicate a directly proportional relationship which is significant in the case of vocal competence and clear, though small, in the case of the auditory ability to identify the tonality. Thus, both groups demonstrate that when the degree of musical culture in the family improves, the pupils' competence within the specified scope improves as well. It must also be said that no other statistical correlations were established within the scope of analysis.

In the next part of the research, the author investigated the relationship between the family's musical culture and the music aptitude/competence test scores achieved by the pupils with high/low rhythm aptitude, singled out based on the scores from the second part of the IMMA test (table 3).

Table 3.
Spearman's correlation coefficients between the family's musical culture and the test scores achieved by the pupils with high/low rhythm aptitude (IMMA Rhythm test)

IMMA Rhythm test high level	Musical culture	IMMA Rhythm test low level	Musical culture
1	2	3	4
IMMA Tonal test	$r_s = -0.01$ $p = 0.96$ $N = 33$	IMMA Tonal test	$r_s = -0.005$ $p = 0.967$ $N = 50$
IMMA Rhythm test	$r_s = -0.19$ $p = 0.30$ $N = 33$	IMMA Rhythm test	$r_s = -0.02$ $p = 0.905$ $N = 50$
IMMA Total score	$r_s = -0.11$ $p = 0.542$ $N = 33$	IMMA Total score	$r_s = -0.01$ $p = 0.934$ $N = 50$
ITML Tonal test	$r_s = -0.26$ $p = 0.144$ $N = 33$	ITML Tonal test	$r_s = 0.18$ $p = 0.199$ $N = 50$
ITML Rhythm test	$r_s = -0.18$ $p = 0.324$ $N = 33$	ITML Rhythm test	$r_s = -0.16$ $p = 0.268$ $N = 50$
ITML Total score	$r_s = -0.26$ $p = 0.149$ $N = 33$	ITML Total score	$r_s = 0.06$ $p = 0.679$ $N = 50$
RIRR	$r_s = 0.01$ $p = 0.936$ $N = 33$	RIRR	$r_s = 0.16$ $p = 0.269$ $N = 50$
SPUM	$r_s = -0.02$ $p = 0.937$ $N = 16$	SPUM	$r_s = -0.27$ $p = 0.086$ $N = 42$
TPMA	$r_s = -0.03$ $p = 0.918$ $N = 17$	TPMA	$r_s = -0.14$ $p = 0.749$ $N = 8$
Vocal competence	$r_s = 0.05$ $p = 0.800$ $N = 33$	Vocal competence	$r_s = 0.32$ $p = 0.022$ $N = 50$
Tonal improvisation	$r_s = 0.43$ $p = 0.014$ $N = 33$	Tonal improvisation	$r_s = 0.03$ $p = 0.859$ $N = 50$

1	2	3	4
Rhythm improvisation	$r_s = -0.04$ $p = 0.815$ N=33	Rhythm improvisation	$r_s = 0.06$ $p = 0.703$ N=50

Source: the author's own research

Individual statistical correlations between the variables were found in both groups of pupils (with high/low rhythm aptitude). The pupils with high scores in the IMMA Rhythm test showed a moderate correlation ($r_s = 0.43$; $p = 0.014$) between their tonal improvisation abilities and the family's musical culture. Thus, the correlation between these variables is significant and it means that the higher the level of family's musical culture (manifested by different forms of musical activity undertaken for the sake of children as well as family members' involvement in music), the better the pupils' improvisation abilities. It also proves that the lower the level of family's musical culture, the smaller the pupils' improvisation achievements. The group of pupils with low rhythm aptitude demonstrated a weak correlation ($r_s = 0.32$; $p = 0.022$) between the family's musical culture and the pupils' vocal competence – the relationship is clear, though small.

In order to answer the final research question, the author calculated the correlation coefficients between the music aptitude/competence of pupils who achieved high/low total scores in the IMMA music aptitude test and the level of musical culture in their families (table 4).

Table 4.

Spearman's correlation coefficients between the family's musical culture and the test scores achieved by the pupils with high/low music aptitude (IMMA Total score)

IMMA Total score high level	Musical culture	IMMA Total score low level	Musical culture
1	2	3	4
IMMA Tonal test	$r_s = 0.46$ $p = 0.009$ N=31	IMMA Tonal test	$r_s = 0.01$ $p = 0.927$ N=53
IMMA Rhythm test	$r_s = -0.26$ $p = 0.168$ N=31	IMMA Rhythm test	$r_s = -0.06$ $p = 0.675$ N=53
IMMA Total score	$r_s = 0.05$ $p = 0.787$ N=31	IMMA Total score	$r_s = -0.03$ $p = 0.826$ N=53

1	2	3	4
ITML Tonal test	$r_s = -0.04$ $p = 0.829$ N=31	ITML Tonal test	$r_s = 0.30$ $p = 0.031$ N=53
ITML Rhythm test	$r_s = 0.03$ $p = 0.883$ N=31	ITML Rhythm test	$r_s = 0.14$ $p = 0.335$ N=53
ITML Total score	$r_s = 0.08$ $p = 0.662$ N=31	ITML Total score	$r_s = 0.17$ $p = 0.223$ N=53
RIRR	$r_s = 0.08$ $p = 0.684$ N=31	RIRR	$r_s = 0.01$ $p = 0.916$ N=53
SPUM	$r_s = 0.50$ $p = 0.048$ N=16	SPUM	$r_s = -0.19$ $p = 0.232$ N=41
TPMA	$r_s = 0.08$ $p = 0.785$ N=15	TPMA	$r_s = 0.01$ $p = 0.987$ N=12
Vocal competence	$r_s = 0.32$ $p = 0.076$ N=31	Vocal competence	$r_s = 0.34$ $p = 0.013$ N=53
Tonal improvisation	$r_s = 0.47$ $p = 0.007$ N=31	Tonal improvisation	$r_s = 0.06$ $p = 0.644$ N=53
Rhythm improvisation	$r_s = 0.14$ $p = 0.451$ N=31	Rhythm improvisation	$r_s = 0.07$ $p = 0.603$ N=53

Source: the author's own research

The analysis has showed that the group of pupils with high music aptitude demonstrates statistically highly significant or significant correlations between the level of family's musical culture and the pupils' tonal aptitude as well as tonal improvisation and perceptual abilities diagnosed using SPUM. The highest correlation coefficient occurred between the family's musical culture and SPUM scores ($r_s = 0.50$; $p = 0.048$), then tonal improvisation ($r_s = 0.47$; $p = 0.007$), and then tonal aptitude (IMMA Tonal test: $r_s = 0.46$; $p = 0.009$). All correlations proved moderate, indicating a significant connection between the parameters in question. What is also noteworthy about this group is the nearly statistically significant ($p = 0.076$), though weak

($r_s=0.32$), correlation between the family's musical culture and the level of pupils' vocal competence. Meanwhile, the pupils with low music aptitude demonstrated only two statistically significant weak correlations between the family's musical culture and the level of children's vocal competence ($r_s=0.34$; $p=0.013$) as well as the auditory ability to identify major/minor tonality (ITML Tonal test: $r_s=0.30$; $p=0.031$). The results indicate a clear, though small, connection between these variables.

Conclusions

The research has showed that the level of music aptitude and selected musical abilities observed among early school-age children should be associated with the musical culture of their family environment. That culture is developed through various forms of musical activity undertaken with varied frequency for the sake of children, including singing, learning songs, playing instruments, listening to music and participating in concerts together. The level of musical culture is also influenced by parents and their amateur or professional involvement in music. Another important factor is parents' education which shows statistically highly significant or significant correlation with the level of vocal competence, tonal improvisation abilities and pupils' rhythm improvisation readiness. A relatively highest moderate correlation was found between the level of mothers' education and children's vocal competence.

In the group of pupils with high tonal aptitude, which was singled out based on the IMMA test scores, the author observed moderate and statistically highly significant correlations between the family's musical culture and pupils' tonal improvisation abilities, vocal competence and tonal aptitude. When it comes to the children with low scores in the tonal test, musical culture proved to have a moderate correlation with vocal competence and a weak correlation with the auditory ability to differentiate between major and minor tonality. Meanwhile, the pupils with high rhythm aptitude demonstrated a statistically significant moderate correlation between the musical activity undertaken with the family and their level of tonal improvisation, whereas a weak statistical correlation was found in the group of pupils with low rhythm aptitude which showed a clear, though weak, connection between musical culture and the level of children's vocal competence. The statistical moderate correlations were also discovered among the pupils who, in general, achieved high scores in the IMMA test. These correlations showed a significant connection between the family's musical culture and the level of pupils' musical compe-

tence, the perceptual abilities diagnosed using SPUM and their tonal improvisation. When it comes to the subjects with low scores in the IMMA test, weak correlations occurred between the family's musical culture and the pupils' ability to differentiate tonality and their vocal competence.

The research has showed for both groups that when the degree of musical culture in the family improves, the test scores within the specified scope improve as well. All the correlation coefficients described in this paper indicate a directly proportional relationship between the variables in question which proved stronger among the group of pupils who demonstrate high tonal and rhythm aptitude and who, in general, achieved high scores in the IMMA test. Moderate correlations were predominant among those pupils, indicating a significant connection between musical culture in the family and the level of music aptitude and selected musical abilities. As far as the pupils with low music aptitude are concerned, the low correlation coefficients were predominant, indicating a clear, though small, connection between the correlated variables.

The results presented confirm other findings on the connection between musical culture in the family and the level of pupils' music aptitude and competence (cf. Shuter-Dyson, Gabriel 1986; Kamińska 1997; Konkol 2002; Bonna 2005a, 2012; Kołodziejcki 2008b; Weiner 2010) and justify the conclusion that the family environment is of great importance for the children's musical development.

Mūzikas kultūra ģimenē un jaunākā skolas vecuma bērnu muzikālās spējas un prasmes (uz Polijā veikta pētījuma pamata)

Beāte Bonna

Kopsavilkums

Raksts sastāv no ievada, metodoloģiskās daļas, pētījuma rezultātu izklāsta un secinājumiem. Uzmanības centrā ir saikne starp mūzikas kultūru ģimenē un muzikālo attīstību (uztveri, dziedāšanu un improvizēšanu), ko demonstrē jaunākā skolas vecuma bērni (1.–3. klašu skolēni, resp., 7–9 gadus veci bērni). Šajā pētījumā mūzikas kultūra ģimenē raksturota kā dažādas mūzikas nodarbību formas, kas tiek veiktas bērnu un viņu vides labā, piemēram, dziesmu dziedāšana un mācīšanās, mūzikas instrumentu spēle, mūzikas klausīšanās, kopīga līdzdalība koncertos. Mūzikas kultūras veidošanā liela loma ir vecākiem.

Galvenie rakstā aplūkotie problēmjasutājumi ir šādi:

- Kāda ir (ja ir) korelācija starp vecāku vispārējās izglītības līmeni un bērnu muzikālās attīstības līmeni?
- Kāda ir (ja ir) korelācija starp ģimenes mūzikas kultūru un bērnu intonēšanas prasmi?
- Kāda ir (ja ir) korelācija starp ģimenes mūzikas kultūru un bērnu ritma izjūtu?
- Kāda ir (ja ir?) korelācija starp ģimenes mūzikas kultūru un bērnu muzikālās attīstības līmeni?

Iegūto rezultātu kvalitatīvā un kvantitatīvā analīze tika veikta, balstoties uz speciāli izraudzītām skolēnu grupām ar visaugstākajiem un viszemākajiem VMKM⁴ testa rezultātiem. Pētījums parādīja: jo ģimenē augstāka mūzikas kultūras pakāpe, jo augstāks arī abu grupu skolēnu muzikālās attīstības līmenis. Apspriežamo mainīgo korelācijas izrādījās spēcīgākas skolēniem ar labām intonēšanas prasmēm un ritma izjūtu, kuri kopumā ieguva labākus rezultātus muzikālās attīstības testā.

Pētījums ļāva arī secināt, ka bērna muzikālo attīstību ietekmē vecāku (pirmām kārtām mātes) vispārējās izglītības līmenis un sociāli ekonomiskais statuss.

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⁴ VMKM – amerikāņu mūzikas pedagoga Edvina Eliasa Gordona izstrādātais Vidējo mūzikas klausīšanās mērījumu tests.

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