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Declared parental attitudes towards music and the musical development of 6-year-old children

Deklarowane postawy rodzicielskie wobec muzyki a rozwój muzyczny dzieci sześcioletnich

Abstract

Aim. The main aim of this research was a comparative analysis of the results obtained by children in the Short Test of Musical Abilities with the parents' survey declarations regarding their attitudes towards music.

Methods and materials. 50 6-year-old children and 50 parents of these children par-

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ticipated in the research. The research was conducted in 2015 in a kindergarten in Krakow. In the research, the Diagnostic Survey method was used. The Survey technique and the Short Test of Musical Abilities was used in the research. Quantitative and statistical analysis were used among the methods of analysing the collected research material.

Results and conclusion. The activities declared by parents differentiate the levels of the children's musical abilities. The research confirmed significant differences between the levels of children's musical abilities in performing melodies and preference for listening to music as the musical activity most often chosen by parents, as well as with the parents' musical education. The use of a computer as music playback equipment is also important for the level of musical ability in terms of performing a melody. What is alarming is the fact that most parents do not undertake activities related to creating music (94% of respondents). Research shows, among others: the importance of actions taken by parents for children's musical abilities and also encourage parents and teachers to act effectively in the context of new technologies.

***Keywords**:* musical abilities, parental attitudes towards music, parents' musical activity, child's musical development, musical education in the family.

Abstrakt

Cel. Rodzina pełni istotną rolę w życiu dziecka. Postawy reprezentowane przez rodziców mogą stymulować jego wielokierunkowy rozwój. Głównym celem niniejszych badań była analiza porównawcza wyników uzyskanych przez dzieci w zakresie *Testu krótkich prób zdolności muzycznych* z ankietowymi deklaracjami rodziców na temat postaw przejawianych wobec muzyki.

Metody i materiały. Dobór grupy był celowy. W badaniach wzięło udział 50 dzieci sześcioletnich oraz 50 rodziców tych dzieci. Badania przeprowadzono w 2015 roku w jednym z krakowskich przedszkoli. W badaniach zastosowano metodę sondażu diagnostycznego, w której wykorzystano technikę ankiety oraz *Test krótkich prób zdolności muzycznych*. Wśród metod analizy zgromadzonego materiału badawczego wykorzystano analizę ilościową oraz statystyczną.

Wyniki i wnioski. Wyniki badań wskazują, że działania deklarowane przez rodziców różnicują poziom zdolności muzycznych u dzieci. Badania potwierdziły istotne różnice między poziomem zdolności muzycznych w zakresie wykonywania melodii przez dzieci a słuchaniem muzyki jako aktywności muzycznej najczęściej wybieranej przez rodziców. Ujawniły się także związki z wykształceniem muzycznym rodziców. Nie bez znaczenia dla poziomu zdolności muzycznych w zakresie wykonania melodii jest wykorzystanie komputera jako sprzętu do odtwarzania muzyki. Alarmujący jest fakt, że większość rodziców nie podejmuje aktywności związanych z tworzeniem muzyki (94% badanych). Badania pokazują m.in. duży wpływ działań podejmowanych przez rodziców na zdolno-

ści muzyczne dzieci, a także zachęcają rodziców i nauczycieli do efektywnych działań z wykorzystaniem nowych technologii. Warto przeprowadzić ogólnopolską akcję polegającą na upowszechnianiu wiedzy na temat celowości działań muzycznych rodziców we wczesnym dzieciństwie. Ze względu na niewielką próbę badawczą nie można uogólniać niniejszych wyników.

***Słowa kluczowe*:** zdolności muzyczne, postawy rodzicielskie wobec muzyki, aktywność muzyczna rodziców, rozwój muzyczny dziecka, wychowanie muzyczne w rodzinie.

Introduction

The importance of parents for children's musical development is highlighted by many researchers. These include Kinga Lewandowska (1996), Edwin Elias Gordon (1997, 2016), Barbara Kamińska (1997), John Sloboda (2002), Agnieszka Weiner (2010), Maciej Kołodziejski (2011), Jadwiga Uchyła-Zroski (2015), Paweł Trzos (2018), or Rafał Majzner (2023). It is worth emphasising that the family environment and the experiences acquired there cannot be replaced by any teacher:

> My education and experience as a teacher have instilled in me the sense that the most important influence on a child's development is the teacher. However, in recent years I have realised how limited this view is, as I have begun to understand more fully how the emotional climate in families profoundly affects children's musical education. Of course, many contextual aspects influence children's musical development, but there is no reason to doubt, given the extensive research now available, how important parents are to their children's musical development (Mcpherson, 2009, p. 15).

According to J. Sloboda (2002), it is the extensive period of acculturation that results in "[...] a specific set of musical skills, such as the ability to play familiar songs and learn new ones, the ability to distinguish certain types of music, or the ability to apply the basic properties of music (i.e., tonality and metre) in organising its performance" (p. 262). The family home is the first school and the first teachers are the parents, especially the mother (Gordon, 2016). Parents shape the musical lifestyle of their family, they teach the child to listen to valuable music, but they also make music together with the child, go to concerts or children's music classes, teach the child to choose and experience music, and may also teach the child to understand and experience music. At the next stage, the responsibility

of shaping musical taste and developing activity is taken over by the kindergarten and the child's educator.

The role of the adult in building a picture of the world together with the child boils down to organising situations that encourage the child to learn about a phenomenon, as well as providing assistance to the child in ordering the experiences they have gained independently (Muchacka, 1999). The family is the main subject of the child's education, which fills the contemporary polycentric space of education, with its cultural, axiological, religious, tolerant, and identity challenges (Trzos, 2018).

The stimulating role of the environment is that it provides stimuli, i.e., music and events, which can influence the development of fascination with music and motivation for music. The environment also influences the child through people who transmit appropriate attitudes, and behavioural patterns, awaken interests and provide opportunities for the presentation of musical achievements (Kamińska, 1997). An individual's early experiences take place primarily within the family, which is his or her living environment and developmental context, as well as an important area of activity for the child through which a variety of experiences are acquired (Kamińska, 1997).

In the context of an individual's musical abilities, in the music psychology literature, it is possible to come across such terms as *musical* ability, *musical aptitude*, or *musical intelligence*. Musical ability can be understood as "[...] genetically determined, relatively permanent individual characteristics that enable efficient learning and acquisition of musical skills in the perception, reproduction or creation of music" (Burowska, Głowacka, 2006, p. 11). Theories of musical ability also vary. For example, in functional-developmental theories, researchers pay attention to the determinants and developmental processes of musical ability. On the other hand, in other theories, e.g., elements and holistic and factor theories, the focus is on the structure of musical ability and the interaction of its various elements with each other (Burowska, Głowacka, 2006). Less frequently used is the notion of *musical aptitude*, which suggests "[...] the existence of a specific structure of specifically musical elements (e.g., sense of rhythm, musical hearing, and musical memory) and features that correlate with them, such as general intelligence or personality traits" (Burowska, Głowacka, 2006, p. 11; Szczyrba-Poroszewska, Waligóra, 2016).

Musical development in each child is unique and reveals many differences between individuals. It takes place in dialogue with the child's living environment (Górniok-Naglik, 2000). Parents and then teachers should organise the child's contact with music and stimulate its development in this area, as experiences decisive for musical development are acquired during childhood (Górniok-Naglik, 2000). The family environment can be considered as one of the determinants of children's musical competence (Weiner, 2010). The following observations are particularly

noteworthy in the results of A. Weiner's study: the parents' knowledge of their child's musical development was fragmentary and based on colloquial opinions, the claim that musical competence can be acquired at any age (although childhood is a special period for its acquisition), the lack of a sense of responsibility for the development of musical interests in the child, and their own opinion of classical music, which was considered difficult and impossible for the child to understand (Weiner, 2010).

Studies of musical abilities in children and candidates for pedagogical studies using *the Test krótkich prób zdolności muzycznych* [Short test of musical abilities] by Jan Horbulewicz and Zbigniew Janczewski (Wilk, 2004) have been conducted for many years in the Kraków environment (by Andrzej Wilk, Zofia Burowska, Joanna Szczyrba-Poroszewska, and Monika Semik). A. Wilk's research into music in primary school grades I–III was based on the Gdańsk system of musical ability testing using four basic test samples (Burowska, Kurcz, & Wilk, 1994). The same samples were used in an experimental study by M. Semik (2022), as well as during a study of preschool and early childhood pedagogy students conducted by J. Szczyrba-Poroszewska (2020).

According to Małgorzata Suświłło, the family environment should provide children with musical experiences that continue during preschool and school education, as this builds children's musicality (Suświłło, 2001).

Children are naturally introduced to the musical output of the environment close to them. This takes place through specific stages called by E. E. Gordon (1997) enculturation, imitation and then musical assimilation. The crux of the aforementioned stages of audiation in the context of a child's musical development depends precisely on the environment, which should be rich in a variety of activities and should also engage in different directions and trends in musical culture (Trzos, 2018). The musical direction in the family can take the following forms: stimulating musical thinking, creating situations in which parents, and child experience musical events, activating listening to a variety of musical material, eliciting responses to music and shaping established responses to a musical stimulus (Trzos, 2018). Such guidance applies to the child's musical education at home and informally in kindergarten. Children's musicality should be developed at home by parents, and supported later by teachers so that a sensitivity to music develops in the child (Trzos, 2018).

A child's attitude to music is also influenced by his or her sound environment. Music and sounds permeate the whole world. This is not about music as a semantic art based on composition but about the music of everyday life from its natural sources. It appeals to the child and stimulates the child's imagination. These include, for example, the sounds of nature, the street, the house, etc. (Górniok-Naglik, 2000). By showing the child the world, including its musical beauty based on sounds, murmurs and noises, we shape his or her sensitivity and creativity (Górniok-Naglik, 2000).

Of particular importance for musical development are the social and cultural environments, whose influence cannot be overlooked. The closest to the child is his or her personal environment, i.e., the home, school or neighbourhood environment, and this includes the provision of musical instruments in the home, the musical skills of the parents, as well as musical traditions and the place of music in family life (Kamińska, 1997). The course of musical development is different in a child who hears singing (especially from the mother) from the beginning of life, in a child who hears music created or played live by the musical parents/family in the child's environment and in a child who only hears played, mechanical music and is deafened by it. The greater the emotional colouring of the music heard, the stronger its effect on the child's mind and heart (Górniok-Naglik, 2000).

The results of the research conducted by P. A. Trzos have shown that few families provide optimal conditions for children's musical development. "While many well-known reports rightly suggest the hard-to-evaluate importance of the musical competence of the family environment in early childhood education, the results of our research reinforce the equally well-known conviction that the state of musicalisation practice in families is definitely still insufficient" (Trzos, 2018, p. 387).

The results of J. Uchyla-Zroska's (2015) survey of pupils in primary school's early grades emphasised that these children appeared to be the most receptive to their parents' encouragement to sing, liked to show off vocally in front of their parents – they were not reluctant to perform in public, sang boldly, regardless of the purity and correctness of the performance. The parents also showed the greatest interest in their first-grade child because of the start of a new stage in their lives – schooling. The parents of the children surveyed ranked music as a less important school subject and thus devoted less and less time to it.

Also, foreign studies show that the highest level of parental involvement in supporting and developing children's musical abilities translates into higher musical achievement (Davidson, Howe, Moore, & Sloboda, 1996). While many earlier studies focused on the relationship between musical training and the development of musical abilities, much attention is now also paid to parents, as they are the ones who decide in the early childhood phase, for example, to send their children to additional musical activities (Corrigall, Schellenberg, 2015) or to create favourable conditions for the development of musical talents.

Problem and aim of the study

The family has an important role in a child's life. The attitudes represented by parents can stimulate the child's multidirectional development. For this reason, the explor-

atory aim of the present study was to compare the results obtained by the children in the *Test krótkich prób zdolności muzycznych* with the parents' declarations about their attitudes towards music. The applied aim was to disseminate knowledge about the purposefulness of musical activities undertaken by parents in their children's early childhood.

The following research problem was framed as a question: "Do and how do parents' declared attitudes towards music differentiate the level of musical ability in six-year-old children?". A research hypothesis H was formulated for the research problem: We assume that declared parental attitudes towards music differentiate children's musical ability level.

Survey method and sample characteristics

The group selection was nonprobability. The criteria for selecting children for the study were: the same preschool education programme and the same age of the children.

Fifty-six-year-old children and 50 parents of these children participated in the study. The research was conducted in 2015 at the Local Government Kindergarten No. 6 in Kraków. Details of the research sample are presented in Table 1.

Table 1
Characteristics of the study sample

	The whole group	Intervention group	Control group	p
Numbers	50	25	25	
Boys	25 (50%)	14 (56%)	12 (48%)	0.57
Girls	25 (50%)	11 (44%)	13 (52%)	0.57
Place of residence – Kraków	50 (100%)	25 (100%)	25 (100%)	1

Source: Authors' own study.

A diagnostic survey method was chosen for the study, which used a questionnaire technique and *the Test krótkich prób zdolności muzycznych* by J. Horbulewicz and Z. Janczewski.

The prepared questionnaire of the author's survey consisted of 11 questions. It had a closed cafeteria (5 questions) and a semi-open cafeteria (6 questions). A disjunctive cafeteria was used for six questions and a conjunctive cafeteria for the remaining five

questions. The questions in the questionnaire focused on parents' musicality, their use of various musical activities at home, listening to and creating music and their opinions on the influence of music on child development. M. Semik was the author of the questionnaire.

"Test krótkich prób zdolności muzycznych includes tasks concerning: 1) performance of rhythm, 2) performance of tempo, 3) repetition of melody, 4) recognition of melody changes, 5) finishing a started melody, and 6) analysis of multitone" (Twarowska, 2010, p. 100). The first four trials are considered to be the most important parts of the test, which were applied during the conducted research. The last two attempts are considered additional. "Their positive result is indicative of the child's musicality, but incorrect answers by a child before the age of nine may not indicate low musicality" (Twarowska, 2010, p. 100). The performance time for all the trials is 15 minutes, and the time for the first four trials is 11 minutes. In the part of the test used for the study, 64 points could be obtained. The scoring for each task performed was as follows: 2 points – if the child reproduces the example without error, 1 point – if reproduces the example with an error, and 0 points – reproduces the example with more errors or does not perform it. In the section on recognising changes of tune, only 2 points could be scored for a good answer or 0 points for a bad answer. Scoring and determination of the level of musical ability using the test were as follows:

0–15 points – very weak level;
16–31 points – weak level;
32–47 points – average level;
48–57 points – good level;
58–64 points – high level.

Data analysis procedure

Among the methods used to analyse the collected research material, quantitative methods and statistical analysis were used. Data obtained from the HJ test were subjected to quantitative analysis: the mean for the test results was calculated and they were ordered according to the scoring scale adopted for the test. Statistical analysis was performed using the statistical package Statistica Pl. Scores and mean were calculated and statistical significance was determined. The Mann-Whitney test was used to analyse differences. The questionnaire for parents concerned their stated attitudes towards music. It consisted of 11 questions, including five closed questions and six semi-open questions. All questions in the survey were analysed, and means and statistical significance were calculated using the Mann-Whitney

test. Only data where statistical significance was found are included in the analysis of survey results section.

Results of the study

The results of the study demonstrated the statistical significance of the different parts of the *Test krótkich prób zdolności muzycznych* regarding the issues raised in the parent questionnaire. Detailed results are presented in Table 2.

Table 2
Results of the study

	Question	Yes	No	p for the overall result HJ
1.	Mother's singing at home	38 (76%)	12 (24%)	0.50
2.	Having a musical education Musical education of parents	8 (16%)	42 (84%)	0.13
3	Existence of above-average musical talent in relatives	17 (34%)	33 (66%)	0.47
4.	Listening to music during pregnancy	39 (78%)	11 (22%)	0.37
5.	Type of music listened to in the child's family home:			
	popular	43 (86%)		0.45
	classical	22 (44%)		-
	other types	10 (20%)		-
6.	Making music with children	33 (66%)		0.51
Forms of musical activity used when playing with the child				
	singing	38 (76%)		0.11
	playing instruments	29 (58%)		0.85
	Musical movement play	22 (44%)		0.62
	listening to music	32 (64%)		0.01
	making music	3 (6%)		
7.	Participation in cultural life			0.49
	theatre	18 (36%)		-

	Question	Yes	No	p for the overall result HJ
	concerts	17 (34%)		-
	cinema	16 (32%)		-
	opera/operetta	4 (8%)		-
	other	11 (22%)		-
8.	Equipment on which parents listen to music with their child			
	computer	45 (90%)		0.06
	player/tower	32 (64%)		0.62
9.	Possession of a musical instrument at home	27 (54%)	23 (46%)	-
10.	Free time at home for contact with child per day			
	0.5–1 hour	8 (16%)	42 (84%)	-
	1.5–2 hours	18 (36%)	32 (64%)	0.68
	More	23 (46%)	27 (54%)	0.32

Source: Authors' own study.

Analysis using the Mann-Whitney test confirmed significant differences between the level of musical ability in melody performance and the preference for listening to music as the musical activity most frequently chosen by the parents and also showed a relationship between musical ability in children and the musical education of the parents (Table 3). In addition to significant differences, the study also detected differences that might have existed had the study group been larger. At the level of trend significance, it was shown that a higher score of musical ability in terms of melody performance was obtained by children whose parents most often undertook motor play and created music with them. The use of the computer as music-playing equipment is not insignificant for the musical ability score in melody performance (Tables 4 and 5). Higher scores of musical ability in terms of sense of rhythm are associated with listening to music during pregnancy (Table 4, level of significance), with a preference for listening to music as a musical activity undertaken by parents with their child, with having an accompanying musical instrument (piano, guitar) or a melodic one (flute) (Table 4, borderline scores), and with time devoted to the child (Table 4). It appears that playing music from a computer is also associated with a higher sense of tempo (Table 5), and that motor play undertaken with children is associated with recognition of melodic changes (Table 6).

Table 3

Parents' musical education and children's musical ability – detailed approach (melody performance)

Musical education of parents	Number of people	Average score on *the Test krótkich prób zdolności muzycznych* (HJ) – performance of a melody	Standard deviation	p
No	42	6.8	5.7	0.03
Yes	8	11.6	4.6	

Source: Authors' own study.

Musically educated parents are a positive factor in children's musical development, as they provide role models. Musically educated parents find it easier to assess the correctness of their children's musical behaviour, correct it and make music together with their children. Parents are the best music teachers for their children in the first years of their lives, provided that they can sing with correct intonation and move to the rhythm of the music (Gordon, 2016). It is noteworthy that in the study group, only a few respondents (16) had completed professional music education, which is also consistent with the experiences of other researchers (e.g., Weiner, 2010; Kataryńczuk-Mania, 2010; Wilk, 2018; Szczyrba-Poroszewska, 2021; Majzner, 2023). Parents who have received formal musical education presumably have greater musical abilities, skills and interests, through which they create better conditions for their children, resulting in a higher level of their children's musical ability to perform melodies. In this case, the development of hereditary musical ability likely interacts with environmental influences (Shuter-Dyson, Gabriel, 1986; Gluska, 2012; *cf.* Corrigall, Schellenberg, 2015).

Table 4

Parental declarations and musical ability – detailed approach (rhythm performance)

Listening to music during pregnancy	Number of people	Average score on *the Test krótkich prób zdolności muzycznych* (HJ) – rhythm performance	Standard deviation	p
No	11	2.7	2.6	0.03
Yes	39	4.8	2.8	
Music reproduction equipment: computer	Number of people	Average score on *the Test krótkich prób zdolności muzycznych* (HJ) – rhythm performance	Standard deviation	p
No	5	2.0	2.8	0.05
Yes	45	4.6	2.8	

Having a musical instrument in a children's home	Number of people	Average score on *the Test krótkich prób zdolności muzycznych* (HJ) – rhythm performance	Standard deviation	p
No	23	3.4	2.5	0.02
Yes	27	5.2	2.9	
Time devoted to the child: more than 2 hours a day	Number of people	Average score on *the Test krótkich prób zdolności muzycznych* (HJ) – rhythm performance	Standard deviation	p
No	27	3.6	2.7	0.03
Yes	23	5.3	2.8	

Source: Authors' own study.

Attention to stimulating the child's hearing in the prenatal period was demonstrated by 78% of the respondents. According to the declarations, the majority of mothers listened to music or sang during pregnancy (78%), which translated into a higher level of musical ability in their children, especially in the performance of rhythm. Likely, the stimulation of the area related to the perception and performance of rhythm during the prenatal period is related to the perception of the mother's voice and the sounds resounding in her body (breathing, work of internal organs, heartbeat) (Lecanuet, 1996; Richards, Frentzen, Gerhardt, McCann, & Abrams, 1992; Gluska, 2012).

The results of the study are also in accordance with the conclusion of other researchers, who emphasise that although mothers' lifestyles have changed, singing still remains an important musical activity, as well as a form of contact with their infants (Ilari, 2005).

During the survey, parents were asked which types of musical activity they use most often when playing with their children. Most respondents declared that they listen to music together (64% of respondents). These declarations reflected a higher level of general musical ability in the children, as well as their greater precision when performing tasks involving the repetition of different rhythmic themes. The development of musical sensitivity involving the emotional experience of music (perception) and the body's ability to respond to musical stimuli depends on acculturation and education. In the simplest terms, the concept of acculturation can be equated with the natural familiarisation with the musical language. According to J. Sloboda (2002), "[...] acculturation is a dominant process up to the age of 10" (p. 238) that requires neither effort nor direction. It also involves the child's innate abilities, the development of the cognitive system and environmental and cultural experiences (Sloboda, 2002). In the early periods of a child's education, acculturation related to active listening to music becomes very important.

It is inextricably linked to motor, vocal or instrumental activity. Therefore, there can be no question of using long songs and talks about music, as a child just starting formal education at school is not able to concentrate on listening to music in stillness for a long time (Ławrowska, Nowak, 2014, Szczyrba-Poroszewska, Waligóra, 2016). Listening to music as an activity undertaken by parents has also appeared in other studies (*cf.* Szczyrba-Poroszewska, 2021; Davidson et al., 1996). The contemporary functioning of music in the home is described by psychologists as "training in ignoring music" (Kamińska, 1997, p. 75). The present research shows the interesting fact that presenting music via computer engages children, which probably contributes to the development of some of their musical abilities through multisensory cognition (Waligóra, 2015). It appears that a musical instrument is possessed by almost one in two respondents, which translates into higher musical ability in terms of rhythm repetition.

The research suggests that important to a child's achievement in musical ability is the time parents spend playing with them. The largest group of respondents spends between half and one hour a day playing with their children, which is reflected in higher abilities related to melody, i.e., repeating it with the voice and recognising changes in it. A slightly smaller group of parents spends more than two hours a day playing with their children (54% of respondents), which is reflected in higher musical skills in performing rhythm.

Table 5
Parents' declarations and children's musical ability – detailed approach (tempo performance)

Music reproduction equipment: computer	N	Average score on the *Test krótkich prób zdolności muzycznych* (HJ) – rhythm performance	Standard deviation	p
No	5	1.0	2.2	0.02
Yes	45	4.0	2.6	

Source: Authors' own study.

In the context of the research conducted, it appears that music is most often played via computer, with surprising benefits for the development of musical ability in terms of clapping out the rhythm, moving according to the tempo of the song, and with vocal repetition of the melody. However, the research was inconclusive as to whether the children's higher performance in this area is due to the unlimited repertoire available online or to the possibility of multi-sensory perception of music. Visuals combined with music may be more engaging for children than listening to music alone. When listening to music combined with viewing an image, it is possible to spontaneously and uninhibitedly imitate artists liked and appreciated by children, to peep at their vocal and dance

skills, and to familiarise themselves with the look and sound of different performance means. The musical layer can also be complemented by visuals that are subordinated to the musical structure of the composition. Surprisingly, the leading area correlating with computer ownership is not perceptual skills, but the repetition of melodies. Perhaps children are watching, listening and moving to the music programmes they watch and choose.

The potential for the use of the computer to support musical development in the child has been put into practice, with varying degrees of success, during the pandemic. Martyna Justyńska and Anna Majewska-Owczarek (2021) have written about the possibilities and limitations of using the computer during musical Gordon classes. Foreign research indicates that the use of appropriate digital technologies can be beneficial in developing musical and creative skills (Dongauser, Nezhinskaya, & Glazyrina, 2020). It is worth emphasising the following Lech Kacprzak (2024):

> Computer use requires the care and attention of parents and teachers, as too early and uncontrolled use can also bring many risks. The computer should not replace playing with peers or siblings, interaction within the family and, in particular, should not become the primary form of leisure. It is extremely important to develop the right attitude to the computer in the child's mind. Children often think that the computer is only for "playing." Children need to be made aware from the start that the computer was invented to work and help people. From their first contact with the computer, children should learn that it is a useful device and that it can be used to spend their time wisely (p. 16).

Table 6
Parental declarations and children's musical abilities – detailed approach (recognition of melody changes)

Using forms of musical activity with the child: movement with music	N	Average score on the *Test krótkich prób zdolności muzycznych* (HJ) – rhythm performance	Standard deviation	p
No	28	13.6	4.9	0.05
Yes	22	16.1	3.8	

Source: Authors' own study.

It is alarming that the majority of parents do not engage in music-making activities (94% of respondents). The reasons for this situation can be seen in the identification of music creation as an activity reserved for outstanding individuals and with effects of great importance and social recognition. In contemporary pedagogy, the importance

of creativity is emphasised not only as elitist but also as egalitarian, relevant to the person and the individual's development. The problem of music creation is also discernible in schools – according to Wiesława A. Sacher (2012), music creation is the activity least frequently undertaken by teachers of kindergartens and grades I–III. Meanwhile, creative handling of musical material is possible through spontaneous music-making, transforming words, melody, rhythm of well-known songs, rhymes, free music-making on everyday objects, using the body as a percussion instrument and is a natural consequence of the child's creative processing of reality. Also, J. Sloboda (2002) emphasises that after the age of five the child's ability to perform tasks with precision and imitation increases, which poses a danger for creative learning about music:

> Spontaneous musical experimentation may cease to play any role after the age of five if the child is not particularly encouraged to do that. Our Euro-American culture does not provide many opportunities for people to improvise. Much more importance is placed on the correct reproduction of well-known songs [...] (Sloboda, 2002, p. 251).

Various exercises for developing musical imagination are proposed by Alina Górniok-Naglik (2000). These include, for example, musical illustrations of nature sounds or figures.

Music and movement games are undertaken by almost every second parent (56% of those surveyed) – surprisingly, the frequent use of music and movement games was associated not only with a better sense of tempo or rhythm but also with perceptual skills in distinguishing changes in melody and with the correctness of performing various melodic examples with the voice.

A similar research problem concerning the ways of supporting and developing musical talents declared by parents was addressed by R. Majzner in his study. Parents' declarations concerning their undertaking of activities in the home environment "[...] mainly by practising music together in the form of singing songs, dances, listening to various musical genres," participating "in events such as concerts, musical tales for children, etc." were in agreement. (Majzner, 2023, pp. 249–250). However, the present study juxtaposed the parents' declarations with the level of musical ability obtained by the children. For example, no significant differences in musical ability were found in children whose parents declared participation in cultural events. The results of the study indicate that the majority of respondents have a musical instrument, whereas in R. Majzner's study, only some parents (i.e., 25%) declared a willingness to purchase a musical instrument "[...] when the child reports such a need or according to the teacher's suggestion" (Majzner, 2023, p. 250).

Conclusion

The study revealed that certain activities declared by parents differentiate the level of musical ability in children. Significant differences were confirmed between the level of musical ability in performing melodies among children and the preference for listening to music as the musical activity most frequently chosen by parents. Higher musical ability in children is also associated with parents' musical education. Not insignificant for the level of musical ability in performing melodies is the use of the computer as music-playing equipment. It is alarming that the majority of parents do not engage in music-making activities (94% of respondents).

Among other things, the study emphasises the great importance of parental activities for children's musical ability. Encouraging parents and teachers to engage in effective activities using new technologies is also important. The study of musical abilities is not only relevant in the context of parents' effectiveness in stimulating musical development but also, as researchers have indicated, some musical abilities (e.g., rhythm perception and performance, melody perception) are significant predictors of language achievement (Politimou, Dalla Bella, Farrugia, Franco, 2019; *cf*. Swaminathan, Schellenberg, 2020). It is interesting to note that these abilities can be stimulated during home musical experiences. It is also worth nurturing parental awareness of musical activities other than listening. For example, movement and rhythm benefit not only musically, but also in the area of self-regulation (Williams, Berthelsen, 2019). The present research demonstrates the benefits of playing music via the computer, prompting not only a critique of new media that are "mechanical" and "stultifying" for children, but also to see it as a medium that connects to the emotional dimension of the music heard and, in the light of the present work, affects the child's mind and heart as strongly as a personal vocal presentation (Górniok-Naglik, 2000). The new role of parents and teachers in the context of new technologies needs to be defined (Hammer, Scheiter, & Stürmer, 2021).

Limitations of the study

It should be noted that the results of the study were based on the level of musical ability in children about their parents' declarations. An issue worth addressing in the future could be the declared and actual state of musical knowledge/skills presented as a comparison and relating this issue directly to the results of the study of musical ability in children. In relation to the research conducted, it is important to emphasise the role of the parent in the development of musical abilities in children also using media and new technologies, which are indispensable in the 21st century. It is also

worth bearing in mind the all-round benefits of children's music-making, in which connection to the actual, and not only declared, state of parents' awareness of their children's music education could become an interesting topic for future research. Due to the small research sample, the present research results cannot be generalised.

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