


Posibilidades de medidas de preferencia musical en niños y niñas en edad escolar¹

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Resumen: El marco de preferencia musical de niños y niñas en edad escolar primaria se forma y moldea gradualmente. El estudio describe las posibilidades de medir el gusto musical en la edad escolar más temprana y llama la atención sobre las particularidades reales que esto implica. Verificamos el instrumento recién creado, el Cuestionario de Preferencia Musical para Estudiantes más Jóvenes (MPQ-YP), en 84 estudiantes (n=84) de edades comprendidas entre 6 y 10 años (Medad=8,23). La solución de tres factores, que divide el MPQ-YP en tres categorías de géneros musicales (música reflexiva y no convencional, música energética y rítmica, música optimista y compleja) resultó satisfactoria. Las propiedades psicométricas son adecuadas y el MPQ-YP parece ser suficientemente válido (validez de constructo y de contenido) y confiable (medida de consistencia interna y confiabilidad dividida por la mitad). Los resultados descriptivos piloto del gusto musical de los escolares más pequeños proporcionan información sobre géneros musicales reconocidos y sus preferencias. Los hallazgos se pueden aplicar a la práctica de educadores musicales, filéuticos musicales y musicoterapeutas.

Palabras clave: preferencias musicales; edad escolar más temprana; Cuestionario de preferencias musicales para estudiantes más jóvenes; MPQ-YP

ENG Possibilities of music preference measures in younger school-age children

Abstract: The musical preference framework of children at younger school age is formed and shaped gradually. This study outlines the possibilities of measuring musical taste at a younger school age and draws attention to the real particularities that this entails. The newly created instrument, the Musical Preference Questionnaire for Younger Pupils (MPQ-YP) was verified, in 84 pupils (n=84) between 6 to 10 years of age (Mage=8.23). The three-factor solution, which divides the MPQ-YP into three categories of music genres (reflective and unconventional music, energetic and rhythmic music, optimistic and complex music) turned out to be satisfactory. Psychometric properties were found to be adequate, and the MPQ-YP seems to be sufficiently valid (construct and content validity) and reliable (measure of internal consistency and split-half reliability). Pilot descriptive results of younger school children's musical taste provide information regarding musical genres and their preferences. These findings can be applied to the practice of music educators, music philetics, and music therapists.

Keywords: music preferences; younger school age; Musical Preference Questionnaire for Younger Pupils; MPQ-YP.

Summary: 1. Introduction. 1.1. Formation of musical taste in childhood. 1.2. The difficulty of researching musical taste in childhood 2. Research objectives, research methodology, and research design. 2. 1. Description of research methods. 2. 2. Description of the research sample 3. Factor analysis of MPQ-YP. 3. 1. Psychometric properties of MPQ-YP. 4. Discussion. 4. 1. Limits and recommendations. 5. Conclusions. 6. References.

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1. Introduction

Music has been a part of everyday human life since the very beginning. It becomes a part of the sound environment of a person, who is its co-creator, and thus music and musical stimuli participate in sound perceptions that take place at several levels (Reybrouck, Podlipniak & Welch, 2020). It is part of human development since the prenatal period. Thereafter, different musical genres are discovered, shaping and changing our musical preference framework (Rentfrow, Goldberg & Levitin, 2011; Schäfer, 2016; Dobrota, Reić Ercegovac & Habe, 2019). Musical taste is formed since early childhood and is influenced by the environment, especially through family, school, and friends, but also through the media and the general public (Schäfer, 2016; Hargreaves & Lamont, 2017). Actually, when music surrounds people from all sides, its polyfunctionality and influence (direct and indirect) are quite fundamental. It can evoke memories regarding experiences while listening to a given song/music at a specific time (Rentfrow & Gosling, 2006). It regulates mood, affects the psychological and emotional experience and furthermore, partakes in the fulfillment of a variety of personal needs (Saarikallio, 2012).

Although much research pays attention to a person's relationship to music, and its influence on individual interpersonal and intrapsychic processes, it mostly focuses on the adult population or teenagers who spend a lot of daily time listening to music (DeNora, 2004). In addition, today a relatively wide area is devoted to various musical and dramatic activities. Music therapy and music philetic techniques are often used, and music is used in work with children target groups (education, social services, healthcare, leisure time, and informal education) (Goodman, 2011). Paradoxically, few people use an approach that actively works with music sensitively and consistently regarding the way their clients/students use music in everyday life. This involves how music affects them, what it evokes in them (apart from the affective component – feelings, sensations, emotions, and moods). This includes connections, associations, memories, and furthermore, what is motivating and demotivating, or what provokes them, what it evokes in them, etc. A child's musical biography is thus often captured and mapped only intuitively, and apart from interviews, observations in direct interaction with the child, educators, school psychologists, psychotherapists, etc. rarely use available and proven diagnostic or research tools for measuring phenomena in the category of musical biography (Kusý, 2022). This is also one of the main motivations for a scientific understanding of measuring musical taste in childhood.

1.1. Formation of musical taste in childhood

Musical taste changes throughout life, but in childhood it is a significantly more dynamic process than later in adulthood. At this age, the child's musical preference framework is gradually supplemented, expanded, and shaped (Kusý, 2017). Musical taste is related not only to musical interests, education, musical experiences, and the musical culture in which the child grows up (including the social environment), but also to how music is listened to and what qualities are attributed to music (Gajdošíková Zeleiová, 2014). Musical taste is an indicator of a person's current relationship to music, interest in reproduced music, musical literacy, and overview of individual musical genres and musical performers. It can also indicate musical interests and attitudes towards genre categories (Podpera, 2006; Mužik, 2009). The evaluation of genres is subjective and functions in a simple dichotomy of like/dislike. The child experiences musical genres in the family, school, and the out-of-school/family environment. Listening may gradually become a child's favourite activity during the teenage years (Krbafa, Krušinská & Zeleiová, 2008; Hargreaves & Lamont, 2017). However, musical taste is rather undeveloped in childhood, as it is the „beginnings“ of the formation of a complex musical preference framework (Kusý, 2018). It is formed analogously, on the one hand, by the children's inner world, which is influenced by their will and character traits, temperament, previous musical experiences and musical-emotional experiences, motivation, and musical and intellectual maturity. On the other hand, educational influences, the promotion of proven artistic values, aesthetic judgements of family, peers and teachers, and choices enter into the process of forming musical taste (Sedlák & Váňová, 2013). The beginnings of musical taste formation can be found at an early age. The postnatal developmental period in the first three years of life is important from the point of view of musical development, because the first musical activities are connected precisely with the development of sensorimotor mechanisms, motor skills, basic apperceptive patterns, and cognitive processes (Krbafa et al., 2008). Musical activity in early childhood has more of an exploratory character and should thus promote a further interest in music. During this period the first experiences in elementary music take place, and are further developed during the preschool age to varying degrees (Kusý, 2022).

In preschool, the child listener comes into contact with a greater number of sound and musical stimuli, first through perception and then exploration, which can be expanded into initial musical experiences through a variety of games and activities. In addition to the family environment, where children are mainly exposed to musical stimuli, the stimulus field is thereafter expanded to include preschool/early childhood education facilities. Singing and music are part of movement games, toy handling, and various objects. Overall, the motor skills are refined, and the coordination of the movements of the upper and lower limbs is improved and synchronised. The child thus has expanded possibilities for creating new sounds. Music is a game for the child and still has a primarily exploratory and motivational character (Kusý, 2017).

The beginning of compulsory schooling is also connected to organised music-educational activity, with the aim of developing music appreciation and taste and assimilate standards, ideals, and values of national

and world musical culture (Krbatá et al., 2008). The child's interests and leisure activities are differentiated, which requires a certain amount of effort and responsibility. The child acquires musical genres mainly in the family, but also at school, while listening to music gradually becomes an increasingly popular activity of pre-adolescents (Kusý, 2014). The peer influence increases, while the relationship with adults remains rather positive, and the heteronomous way of moral reasoning prevails. Authority becomes the bearer of values, standards, and ideals, which younger school age children usually accept rather uncritically. That is also why this period is sometimes referred to as so-called „naive realism“, reflecting precisely a certain degree of „childish naivety“ in realism, which is significantly influenced by the view of the world of adults around them (Langmeier & Krejčířová, 2006). However, it gradually becomes more critical and this is also manifested in the musical preference differentiation, indicating the gradual discovery and appreciation of new and different genres, regardless of the adults who surround younger school children. However, it should not be forgotten that even during this period, similarly to preschoolers, music remains a game for the child and has a primarily exploratory and motivational character (Sedlák & Váňová, 2013; Hargreaves & Lamont, 2017).

1.2. The difficulty of researching musical taste in childhood

As follows from the above-mentioned developmental specifics in childhood, researching and even capturing or measuring musical taste in all its complexity in child listeners is a relatively demanding task. There are several reasons why this is a difficult task and it can be assumed that similar reasons explain the relatively small amount of research on the issue of musical taste in childhood.

- *Musical taste as a dynamic process* – This process begins in childhood, but musical taste is unformed in this period. The number of well-known musical genres that can gradually arouse the listener's interest increases with age, and thus the listener develops a profile first in younger adulthood (Kusý, 2017).
- *Musical taste as a reflection of several factors* – It is formed analogously, on the one hand, by the student's inner world, which is influenced by their will and character traits, temperament, previous musical experiences and musical-emotional experiences, motivation, and musical and intellectual maturity. On the other hand, educational influences, the promotion of proven artistic values, the aesthetic judgements of peers and teachers, and choices enter into the process of forming musical taste (Sedlák & Váňová, 2013).
- *Limits of the used measuring instruments* – Several measuring instruments that have been constructed and optimised to capture the musical preference framework and musical taste in different age categories have shortcomings. There is still no universally valid and functional instrument to capture the current musical taste of child listeners. In addition to psychometric limitations (e.g., questionable validity, insufficient reliability), the specific factor loading of individual items for different cultures is also questionable.
- *A large number of musical genres and their confusion* – This point seems to be problematic, especially when examining musical taste during adolescence and adulthood, when this gradually develops, crystallises, and later stabilises. The problem lies mainly in the large number of musical genres with many specificities, various genre confusions, and sometimes the lack of transparency in how to distinguish individual genres and their categories from each other. An example illustrating one of the most widely used measurement tools for capturing musical preferences, is the Short Test of Music Preferences (STOMP) (Rentfrow & Gosling, 2003), which includes 14 of the most frequently used musical genres selected from several dozen genres. Many adaptations of this instrument in different countries differ from each other (not only the number of genres, but also factor saturation – i.e., categories of musical genres). For example, the Czech research by Franěk and Mužík (2010) was based on this instrument, but some items were added or modified. Overall, they used a questionnaire containing 16 musical genres, similar to the Slovak version, which was based on the original STOMP, but mainly took Czech research into account, this being the most similar to the cultural conditions in the present study. Slovak measurements, the Musical Preferences Questionnaire (MPQ) (Kusý & Vozařová, 2014a) and the Musical Preferences Questionnaire for Children (MPQ-CH) (Kusý & Vozařová, 2014b), uniformly include 17 musical genres sorted into five factors/categories of musical genres. The STOMP can be found in many studies in several countries around the world, and it has been translated into several languages and adapted to different cultural conditions. This also shows that it is difficult to create a functional research tool that would not be culturally determined and could adequately capture musical preferences and musical tastes globally across different cultures.

The above-mentioned research at any rate approached the target group of child listeners (e.g. in preschool and younger school age). However, this research attempt is in many respects a pilot, since there are actually very few relevant scientific findings on musical taste and preference of musical genres in children under 10 years of age.

2. Research objectives, research methodology, and research design

The primary research goal was not only to create but also to verify an adequate research instrument that would be applicable for capturing the musical taste in younger school age children. This is a pilot research project regarding this issue in Slovakia, so the process of creating a research tool, verification of reliability, and description of the captured musical taste of younger school age respondents will be explained in

detail. The entire research has a quantitative, psychometric character, and it approximates the process of pilot Musical Preferences Questionnaire for Younger Pupils (MPQ-YP) (Vindišová, 2022) adaptation. The basic research questions are established as follows:

RQ1: *What is the factor structure of the MPQ-YP among younger school-age respondents?*

RQ2: *What are the psychometric properties of the validated MPQ-YP in the research sample?*

RQ3: *What are the musical preferences captured by the MPQ-YP among younger school-age respondents?*

Subsequently, the results section endeavors to answer the above-mentioned research questions..At the same time there is an analysis and interpretation of the resulting findings with regard to the statement about functionality and degree of adequacy of the newly created measurement for capturing musical preferences in younger school-age children (Vindišová, 2022).

2.1. Description of measurements

As part of the data collection methods, the MPQ-YP was used to capture the musical preferences of younger school-age children (Vindišová, 2022), which reflects the current state of knowledge on this issue in the Czech and Slovak cultural environments. The MPQ-YP is based on the Delsing et al. (2008) Musical Preference Questionnaire (MPQ) and on the Slovak Music Preference Questionnaire for Children (MPQ-CH), which was originally verified in older school-age listeners and teenagers (Kusý & Vozařová, 2014a). The inspiration for the creation was also personal communication with Rentfrow and Gosling², who contemplated measuring musical preferences in childhood. This was done with the help of short musical samples representing individual musical genres, and based on a shortened scale, through which the percipients/participants could express themselves in terms of liking/degree of preference. The final version of the MPQ-YP, which was verified as part of this study, thus contains 12 examples of musical genres, compared to the MPQ-CH.

The MPQ was also supplemented with children's music due to the age of the target group of primary education pupils (6–11 years). The following musical genres were involved: classical music; jazz and swing; rock and pop-rock; rap and hip-hop; metal and hard rock; blues, funk, soul, and RnB; pop; folk music, brass band, and gypsy music; electronic music (dance, house, techno, DnB); punk, indie rock, and grunge; children's music; and reggae and ska. Each genre also includes an example of a performer/group in parentheses, which is accompanied by an audio music sample. The administration is thus carried out either directly in person with the option of playing music samples individually or to a group of participants. They indicate their preferences on a sheet with 12 musical genres on a simple four-point scale, where 0 represents I don't know it at all; 1 represents I like it very much; 2 represents I have no opinion about it yet and 3 represents I don't like it at all. In addition to the numerical and verbal options on the scale, simple symbols (emoticons) are also added to enhance understanding, which are especially recommended for scaling with children of this age (Kusý, 2021). The second option is to use the MPQ-YP electronically in a digital version, where the tool includes links to individual sequences of short music samples by specific performers representing the 12 musical genres.

2.2. Description of the research sample

First-grade pupils of the primary School in Pata³ (n=84) participated in the research. The method of selecting respondents was a simple deliberate and available selection, while the criterion was mainly for selecting younger school age respondents. After the initial information, everyone had the opportunity to decide whether they were willing to participate in the research. The legal representatives of the participating children signed informed consent forms, thereby supporting the pupils in participating in the data collection. All data were anonymised and obtained only for the purpose of the research study.

In the research sample, the majority of respondents are directly from the village of Pata (94.5%), while the others are from the surrounding villages. The distribution by gender is relatively homogeneous: 55.95% of participants were girls (n=47) and 44.05% were boys (n=37). The age range of the respondents varied from 6 to 10 years (AM=8.23). For greater clarity, the distribution by age is presented in Table 1 below.

Table 1. *Distribution of respondents by age*

Age	n	%
6	11	13.10%
7	13	15.48%
8	23	27.38%
9	20	23.81%
10	17	20.23%

² In this case, it is unpublished email communication between one of the authors of this study (PK) and Prof Peter J. Rentfrow and Prof Samuel D. Gosling in the years 2013–2015.

³ Pata is a small village in the west of Slovakia with a population of just over 3,000.

The primary criterion for the selection of respondents was the age of younger school age children. The distribution by age mentioned above is supplemented by the representation of students based on the school year they are currently attending (see Table 2 below).

Table 2. Distribution of respondents by year of study

Year of study	n	%
1	19	22.62%
2	23	27.38%
3	20	23.81%
4	22	26.20%

In the context of this study, the level of music education is also an important indicator of the relationship to music. The highest representation, up to 53.57% of respondents, stated that they had no music education, apart from the basic music education in the curriculum of kindergartens and elementary schools. The next highest representation has a attend to an elementary art school, which represents 29.76% of respondents. Individual music education, acquired at home independently or under the guidance of a close family member, was indicated by 15.48% of respondents. Finally, 1.19% of respondents attend a private art school.

3. Factor analysis of the MPQ-YP

Given that this study aims to verify the newly created MPQ-YP in the Slovak cultural environment, it is a justified procedure to apply factor analysis to the items, thereby applying the principle of structural psychometrics in item analysis. The role of factor analysis in the development and analysis of newly created instruments is justified. In this case, exploratory factor analysis was applied, which is used in developmental psychology research, in which a suitable factor structure of measured variables is repeatedly sought for individual age categories. It is furthermore used for investigating whether the given structure changes during development (Szeliga, 2010), this being the case researched here for the musical preference framework in child participants.

Before using factor analysis on the MPQ-YP measuring instrument, Bartlett's sphericity test was implemented, since Szeliga (2010) includes this as one of the criteria for the appropriate use of factor analysis. Its value is 285.076, which can be considered significantly satisfactory ($p < .001$). Another assumption was the Kaiser-Mayer-Olkin selection adequacy measure, whose value of 0.790 reaches the medium level, and thus also fulfilling this assumption (Szeliga, 2010). The equamax orthogonal rotation method was used, to reduce the number of variables highly correlated with one factor and also the number of factors needed to explain the variable. The results of the MPQ-YP factor analysis in the form of a factor correlation matrix are presented in Table 3 below.

Table 3. Factor structure of the MPQ-YP

	Factors (r)		
	1	2	3
Classical music	0.292	0.358	0.467
Jazz/swing	0.716	0.295	-0.007
Rock/pop-rock	0.629	0.354	0.214
Rap/hip-hop	0.146	0.695	0.037
Metal, hard rock	0.453	0.430	0.184
Blues, funk, soul, RnB	0.119	0.783	0.126
Pop/folk	0.138	0.764	0.069
Folkloric music, brass band, gypsy music	-0.039	0.279	0.828
Electronical music - dance, house, techno, DnB	0.781	0.087	0.026
Punk, indie rock, grunge	0.830	0.047	0.079
Children's music	0.205	-0.105	0.770
Reggae, ska	0.504	0.059	0.261
<i>r</i> - correlation coefficient value (factor charge)			

All highlighted values represent the factor charge, which after rotation for the given factor is the most significant for each of the music genre separately. Compared to the MPQ-CH, which was created and verified on a sample of high school students, there is a reduction to three main factors. Inspired by the previous research works of one of the authors (PK), the following factors for the MPQ-YP can be established:

Factor 1: *Reflective and unconventional music – RN* (jazz/swing; rock/pop-rock; metal, hard rock; electronic music/dance, house, techno, DnB; punk, indie rock, grunge; reggae, ska)

Factor 2: *Energetic and rhythmic music – ER* (rap/hip-hop; blues, funk, soul, RnB; pop/folk)

Factor 3: *Optimistic and complex music – OK* (classical music, folkloric music/brass band/gypsy music, children's music).

This means that there are two ways to proceed during the evaluation: the raw score for individual music genres (according to scaling) or the sum in each of the three factors, which can also be converted to the average score of the individual factors. For RNs, the raw score will range from 0 to 18, which is divided by the number of items/genres (for RNs it is 6) to get the average score in the RN category. This was the procedure for each of the following categories; however, it must not be noted that a different number of genres (items) applies to each category.

3.1. Psychometric properties of the MPQ-YP

To use any quantitatively oriented diagnostics or research instrument for diagnostic or research purposes, first its psychometric or edumetric properties must be known. Basic parameters such as standardisation, objectivity, reliability, and validity represent the basic argument in the selection of research and diagnostic methods. Otherwise, there is a risk that the results will not have anywhere near the telling value and weight attributed to them or expected from them (Kusý, 2021). Dealing with the psychometrics of the MPQ-YP in this place is not a detour, as might seem at first glance, but a justified standard procedure in the adaptation and optimisation of any functional measuring instrument in the human sciences (Džuka, 2006).

The standardisation of this measurement should be ensured by the fact that the administrator (diagnostician/researcher) who decides to use it will start from the „header“ of the MPQ-YP. This would mean always uniformly explaining the task and the method of scaling, along with ensuring adequate reproduction of individual musical samples that illustrate the 12 musical genres in the items of the questionnaire. Everything should take place uniformly, standardly under the same conditions, so that the method of administration does not influence the result. The condition of objectivity is also ensured by the adequate administration of the MPQ-YP. The administrator should not in any way influence or „distort“ the course of data collection when entering the questionnaire or when evaluating it (Kusý, 2021). After a short training, the MPQ-YP can be used for research or diagnostic purposes with relative ease by any supporting professionals.

When considering reliability, or the measure of internal consistency of the MPQ-YP, this instrument was found to measure reliably enough, since reliability analysis of the questionnaire items indicated the Cronbach coefficient value of internal consistency ($\alpha=0.82$) to be sufficient. When the items were split in half (split-half reliability), even when any item was removed, sufficient reliability was shown ($\alpha \geq 0.80$). If the Spearman–Brown oracle formula ($r_{tt}=0.83$) is added and the degree of homogeneity of the MPQ-YP is sufficient all parameters seem to be met for an adequate measurement of musical preference of younger school age children in Slovakia.

Regarding MPQ-YP construct and content validity, the tool had already been assessed by five independent experts while the creating the final version. All of them were experts with more than 10 years of experience, whereas the instrument was assessed successively by a music psychologist, a music therapist, a music teacher, and primary education teachers. All of them independently agreed that the instrument constructed in this way should adequately reflect the basic categories of musical genres with a representative selection of performers for younger school-age listeners. Comments that were more related to the selection of some performers or the modification of the scale to a symbolic one (compared to the original numerical one) contributed to the optimisation of the tool and increased the degree of construct and content validity of the MPQ-YP. Another option for demonstrating construct validity is to compare results with a similar instrument (Gavora, 2010). Due to the fact that in Slovak cultural conditions, this is a completely new instrument for the younger school age category, it is not possible to compare it with other measuring instruments that determine the musical preferences of younger school-age listeners. At least partially, however, the results can be compared with the MPQ-Ch questionnaire, which was used and adapted on a sample of older school-age listeners ($n=73$) (Kusý & Vozařová, 2014b). The lower limit of the older school age (10–11 years) is close to the upper limit of the younger school age, so it can be assumed that the child has a comparable ability to express his preference for specific genres. The amount of music genres that children listen to at this age is gradually expanding, so it is expected that the music preference framework will be similar, and in the preference of some genres (especially for 9–10-year-olds) it will be identical to older listeners (11–12-year-olds). At the same time, from the point of view of musical development, it is likely that the number of zero answers will decrease with age in individual genres, perhaps with the exception of the so-called “children's music” (performers specifically aimed at younger school-age listeners), so interest in their work is gradually waning. The comparison between the preferred music genres of listeners of younger school age and older school age is illustrated in Table 4 below.

Table 4. Comparison of musical genre preferences in younger and older school-age children

Music genre	Younger school age (n=84)		Older school age (n=73)	
	AM	Incidence of zero responses in %	AM	Incidence of zero responses in %
Classical music	1.71	29.76	1.85	13.70
Jazz/swing	1.82	25.00	1.82	24.66
Rock/pop-rock	1.45	9.52	1.97 / 2.53	23.29 / 19.18
Rap/hip-hop	1.39	5.95	4.48	1.37
Metal, hard rock	1.54	20.24	1.73	30.14
Blues, funk, soul, RnB	1.46	11.91	2.85	5.48
Pop/folk	1.21	7.14	3.97 / 1.44	4.11 / 35.62
Folkloric music, brass band, gypsy music	1.71	9.52	2.75	10.96
Electronical music - dance, house, techno, DnB	1.38	9.52	3.07	15.09
Punk, indie rock, grunge	1.48	22.62	1.95	27.40
Children's music	1.90	1.19	-	-
Reggae, ska	1.42	9.52	2.71	16.44

AM – arithmetic mean (original scale for younger school age from 0 to 3 with reverse score and for older school age from 1 to 5). The highest or the lowest achieved AM values in individual categories, while the reverse scaling applies for younger school age (i.e., the closer to 1, the higher the preference, and vice versa).

4. Discussion

In the Results section, the obtained results are listed without interpretation, contextualization, or discussing in relation to authors. In this part of the study there is a synthesis of the findings, thus bringing the results into discussion within the context of current knowledge in the field of measuring music preferences among child listeners.

The first research question was regarding the factor structure of the MPQ-YP among younger school age respondents. As can be seen from the factor matrix presented in the Results section (see Table 3), the MPQ-YP is organised into three main factors, the first called RN – reflective and unconventional music (as in the MPQ and MPQ-CH), which includes music genres such as jazz/swing; rock/pop-rock; metal, hard rock; electronic music/dance, house, techno, DnB; punk, indie rock, grunge; and reggae and ska. The second factor for the MPQ-YP was ER – energetic and rhythmic music, which includes genres such as rap/hip-hop; blues, „black music“ - funk, soul, RnB; and pop/folk. The third factor is the OK category, which includes upbeat and complex music and genres such as classical music, folk/brass/gypsy music, and children's music. The first difference is that the MPQ-YP consists of three main factors. For comparison, in terms of content and focus, the closest instrument, the MPQ-CH, contains five, and even its predecessor, the MPQ, verified on adult listeners, contains up to six main factors (Kusý & Vozafová, 2014b). The original STOMP instrument, which was validated in its original version on US adult listeners of various ethnicities, was originally based on the testing and analysis of 80 genres, while in its final form it included 14 genres grouped into four large factors (Rentfrow & Gosling, 2003). The Czech research by the authors Franěk and Mužík (2010), which included different age categories ranging from 16 to 50 years, also confirmed a five-factor structure for individual age cohorts, but the individual genres were distributed in different dimensions for different age categories. Explaining why the number of factors or the factor saturation of different genres changes with age and differs in individual studies (the same structure is not always preserved) may not be easy. An attempt is made to reflect on this in connection with the interpretation of RQ3 below.

The second research question asked was regarding the psychometric properties of the validated MPQ-YP in the research sample. As demonstrated in the Results section, the MPQ-YP seems to be sufficiently valid (construct and content validity) and reliable (measure of internal consistency and split-half reliability), which speaks in favour of the adequacy of the this instrument's use in measuring music preferences among younger school age listeners in the Slovak cultural environment. These findings are consistent with the psychometric properties demonstrated by other comparable versions of the original STOMP, such as the MPQ and the MPQ-CH (Kusý & Vozafová, 2014b), or Czech experience with a 16-item instrument derived from the STOMP with good psychometric properties verified with 16+ listeners (Franěk & Mužík, 2010).

The third research question, tried to show musical preferences captured by the MPQ-YP among younger school age respondents. The results mostly provide a pilot description of the music preference framework among younger school-age listeners in Slovakia, although a representative sample is not worked with and the possibilities of generalisation are considerably limited. One of the first pieces of information of interest was which musical genres are known by the younger school age percipients (a prerequisite enabling them to have a preference or not) and how it differs from older percipients. At this point, there could be a connection with the concept of so-called musical literacy, which Gajdošíková Zeleiová (2012) understands as the ability to

understand music and its functions, expressions, and meanings. It also involves the ability to create music at an elementary level, to reflect on the musical environment, and to expand one's own knowledge and creative potential by one's own involvement or have an attitude towards musical works. Although this definition does not explicitly refer to musical taste, it can be found as an important component directly related to musical reception and perception. The next link indicated by Gajdošíková Zeleiová (2012) is the goal of music education. Almost half of the respondents are currently in some kind of musical education, this being the acquisition and deepening of the relationship to music and ability to differentiate the musical-aesthetic space with its complex functional use in human life. Krbaťa et al. (2008) add that organised music-educational activity aims to shape musical taste and supports the assimilation of standards, ideals and values of national and world musical culture. It would be most important to already take into account the connections and the influence of music education on the development of musical literacy in childhood (Hargreaves & Lamont, 2017). However, the investigation of the possible development of musical taste was not the object of this study.

As evidenced by the research of Vigl et al. (2023), listening to music had a strong positive effect on mood, motivation and concentration and a moderate effect on learning. The beneficial effects seemed to be mostly due to creating positive and energizing emotions, increasing attention and providing routine and rest between lessons at school. The findings suggest that listening to music of one's choice could be an effective and low-cost strategy to improve students' emotional state, motivation, and concentration in a school context. Likewise, other research showed that listening to music in the school environment during breaks increases self-reflection, discipline, contributes to a higher degree of affiliative and cooperative behavior, if the children listeners had the opportunity to participate in the selection of the playlist in advance (Kusý & Gajdošíková Zeleiová, 2016).

As is clear from Table 4 above, performers for children are the best known for younger school children, but this cannot be compared with older listeners, because this genre was not included in the MPQ-CH. However, the majority of performers for children produce musical compositions intended for children from pre-school to early school age, so this finding merely illustrates the real situation. It is interesting that rap and hip-hop were also among the most popular genres for younger school age, which also applies to older school age and is understandable given its great popularity among pubescents and adolescents (Kusý, 2014). It may be surprising, however, that this genre is already established among listeners of younger school age, which may be related due to older siblings or parents who listen to rap and hip-hop in the family. It can also be due to the relatively easy availability of individual music genres on many platforms and children's access to them already at this age. Without evaluating this genre in any way, one could further consider that children between the ages of 8 and 10 want to grow up earlier and mature, giving rise to the first signs of pre-pubescence and the subsequent period of adolescence. The image, expressiveness, and image that rap and hip-hop music brings to its listeners can be closely related to questions related to self-image, self-identity, self-worth, etc. All these are justified developmental tasks that belong more to the period of puberty and adolescence. However, it seems to be emerging at a younger school age, and the current era and the current social situation enhance rather than adequately correcting and regulating it (Shepherd & Devine, 2015).

When considering the high incidence of zero answers among the younger school age participants, it seems that classical music is precisely what younger schoolchildren are least familiar with. Compared to the older school age, where the percentage of zero answers decreases, it can be considered that children at this age are only gradually becoming familiar with the classics, which are structurally and cognitively more demanding. Given that it is not a "mainstream" genre, not all will encounter it to the same extent, perhaps with the exception of common practice within music education during primary education. Other musical genres outside the „mainstream“ such as jazz and swing can also be included among the structurally more demanding, which are also among those less well known for younger school-age listeners, where up to a quarter do not recognise them at all, coinciding with older school-age percipients (Kusý, 2014). An equally high percentage of zero answers among younger and older school children was shown for genres from the category of reflective and unconventional music, such as metal, hard rock, indie rock, punk, and grunge. The occurrence of zero answers does indicate something about the „width“ of musical taste and, in general, about the overview of individual musical genres among children listeners. However, it is important to supplement it with the popularity index of individual music genres or categories of genres among listeners of younger school age. The most popular music genre of younger school-age listeners in our research was children's music, which is also the genre the respondents knew best (a low incidence of zero answers was taken into account when analysing scores in individual genres). Despite their relatively high „obscurity“, they continued to appear as the most popular among respondents who know them in the genres of jazz/swing and classical music. Folk music and brass appeared as well as classical music among the most popular genres, in addition to a lower content of zero responses. On the contrary, our respondents least preferred pop and folk, or electronic music genres (dance, house, techno, DnB) and rap/hip-hop, which also showed a rather lower percentage of zero responses (6–9.5%). It could be considered that these genres are well known to younger school children, but this does not mean that they also like them. All of these genres seem to become more popular with listeners at a later age (see Table 4 above), which was mainly demonstrated by research into the musical preferences of older school-age children (Kusý, 2014). But at this age the formation of musical taste can only be considered as a dynamic process that runs parallel to and is linked to the developmental processes of younger school-age children (Kusý, 2017) towards greater wholeness, fulfillment, maturity, and perfection (Gajdošíková Zeleiová, 2012).

4. 1. Limits and recommendations

Considering that all research requires critical self-reflection, the last part of this study is a brief outline of some limitations and suggestions for further study in the field of understanding the musical taste of children listeners.

The first critical reflection is with regard to the research set. Given that only respondents from one school were examined, in the context of musical taste and its specific regional and geographical characteristics specifics, this may reduce the possibility of generalising the results towards a representative sample of the younger school-age listeners population. In addition, the relatively narrow sample does not provide many possibilities for statistical analysis and processing, which is also limiting. Another problem may be related to the attempt to „measure“ at all, to capture the musical preference framework, which is very dynamic in this age category and has a rather procedural nature. However, it may indicate a certain direction, or the initial phase of the development of a person's musical taste, taking into account all ontogenetic specificities and nuances. At the same time, the entire attempt to psychometrically grasp the construct of musical taste and musical preference is complicated by the fact that the so-called music segmentation is part of the musical culture and reality in which the research takes place.

Therefore, it is possible to recommend an expansion of the randomised sample of respondents (ideally for a representative selection with the possibility of generating results and setting a benchmark). Regarding the choice of methods, it would be necessary to supplement and validate the functionality of the MPQ-YP by including some qualitative research methods (e.g., focus groups, interviews with listeners and their significant others). There is also the possibility of repeating the investigation on musical taste over time (i.e., to carry out longitudinal research), which would provide an opportunity to follow the developmental trajectory across individual age categories. This would potentially be of great practical importance, and music pedagogues, teachers, educators, and other experts in the field of music therapy and music philletics could possibly benefit from the conclusions.

5. Conclusions

Musical taste is a complex phenomenon, which is formed, on the one hand, by the inner world of the listener, character and temperamental qualities, previous musical experiences, musical emotional experiences, and motivation. On the other hand, it is determined by education, promotion of artistic values, the aesthetic attitudes of family, peers and teachers, etc. (Sedlák & Váňová, 2013). If musical taste is considered a very dynamic process, especially in childhood, and musical preferences can be largely situationally determined, variable, and “on the move researching musical taste seems to be quite ambitious. Nevertheless for a better understanding of the formative relationship of a person to music, a better understanding is needed of the formation mechanisms of musical attitudes, musical preferences, and overall musical taste. All this, as part of a person's so-called musical biography (including childhood) can be useful for practical use wherever music is used, whether it be educationally, prophylactically, or therapeutically. Thus, this study shows that attention must be paid to musical taste from childhood on and will hopefully encourage further research on this topic.

6. References

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