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EXPLORING THE ELEMENTS OF ATTITUDE TO MUSIC AMONG STUDENTS OF TEACHER TRAINING

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SUMMARY. This paper explores the viability of a questionnaire, which measures students of teacher training in the aspects of their musical attitude. In order to accomplish the aim, a pilot study was designed. The sample (N = 60) is based on students specialized in music and science and participating in the survey on a voluntary basis. The measuring instrument ignores the aspects of specialization, gender and grade and time stability. Since these aspects were statistically verified, this questionnaire can be applied to measure and evaluate the -musical attitude and its development. The modification of the responses indicates the development.

Keywords: musical experience, music therapy, musical knowledge, musical taste

According to empirical researches music mobilizes the non-conscious psychical contents. Thus it offers deeper emotional experience, broader communication possibilities and contributes to shaping positive social relationships (Konta, 2010). The basic research aims at the development of social and emotional competence by means of music therapy. For this development we intend to prepare a training programme among the students of teacher training. This study presents the results of testing the questionnaire which explores the musical attitude of the students of teacher training. Testing the questionnaire can be an indication of efficiency and it helps to choose the method and elements of the training sessions.

The questionnaire is based on the theoretical framework of Losonczy (1964, 1969). According to this model we distinguished the dimensions of the musical intensity, musical activity, musical experience, perception of surrounding sounds and previous training experience. The

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dimensions – after defining them– were divided into items. We created responses to the items. Students were expected to choose what they thought the most typical of themselves. A pilot study was compiled to test the questionnaire. First, second and third year students of the music and science departments took part in the sample (N = 60). We examined whether the students' general attitude to music is independent of specialization, gender and grade. Stability in time was tested later, through a repeated survey ("test-retest reliability"). In addition, we compared the students' musical attitude of the present and past and demonstrated the change of it as the consequence of the developments in the professional life and of the determining negative musical experience. During the training, the students could observe the effect and tools of the developing method through their own experience.

The theoretical background of the studied musical factors

Following Bagdy's approach (2005), sound is a life sign independent of culture. The musical elements reflect the physical parameters of our world. In other words, the musical components became part of human culture by means of ancient magic rituals and traditions. For example, work songs which promote our energy, or symbols which are part of traditions. Therefore the magic act is mimetic, as Thomson assumes (1975). The magic uses the techniques of mimesis. According to the system of György Lukács (1997) the magic is an individual approach to a goal-oriented working method which may call out targets, desires from the nature with the help of imitation. The mimetic act does not affect the reality, however, it affects the participants. As their subjective relationship to the reality changes, the objective reality will change too. It means that rituals try to achieve their goal by imitating the nature. This ancient, universal domain is included in the everyday human life and also can be found in musicology. Thus, we can say that the practice of music therapy uses these ancient, archaic techniques of imitating practice. This is the basis of the music therapy which helps people practise different situations in a protected area. The concept is verified by the system of --Alexander (1969). It indicates that the object of an art activity is the individual representation of life, which actually carries a life-sustaining strength. It seems to be also a driving force in all therapeutic practice. 0-

Josef Jealousy's (1962, 1970) concept reflects the idea of the traditional music theory. Based on this theory the vocal and instrumental music developed parallel with the development of the instruments and the

technical and scientific progression. On the other hand playing music in the therapeutic practice belongs to ancient layers and it emerged together with people in the process of evolution. According to the system of Lisa (1973) the music born in active music therapy can be ranked among the same type as folk songs or improvisation, which we can consider as a parallel to the „world music". The definition also includes the ancient, archaic musical elements, customs and the rhythm, sound and interpretation of the Eastern and Eurasian world. Applying György Lukács's (1972) categories - referring to the work of art – these layers are unique, non-typical and do not raise to the level of humankind, However, they fully satisfy the therapeutic goal and being unique contribute to the creative development of people. The musical experience, that is the effect of music (according to the human aspect), does not only mean that the user listens to the music as an outsider, but they also become immersed in it. This is the reason for using music in therapy. The idea is confirmed by the theory of József Újfalussy (1962, 1970). According to this system there is an indirect, immaterial and flexible feature of the musical objectivity existing that allows us to experience emotional contents directly. The nature of the direct musical experience can bring the participants pleasant or cathartic state.

In Mátrai's approach (1973), the experience loses its special meaning in everyday practice. He identifies five essential features of the experience on the basis of psychological definitions. These are the following. The first is the immediacy by which the experience can be experienced directly and immediately by the individual. The second is the spiritual connection that appears in the experience between objects and subjects. The third characteristic refers to a duality expressing that it is a function of the active and passive state of mind at the same time. The fourth feature is the extension of the second one, where subject and object stand in pair, and they are connected with each other as the partial and the whole. The fifth feature of the experience refers to the diversity of spiritual relationships in it. In other words, the experience provides the harmony and unity for the human psyche. However, the spiritual quality of the relations appearing in it could be different. Having defined the experience, Mérei (1995) started his examination with a psychological examination of taste. Following his theory there is a conflict between the prior knowledge, preliminary expectations and the realization which is also a semantic conflict, and it can modify the experience. This is based on the fact that prior expectations are rarely realized and the difference can affect the experience on the level of the habits and attitudes. In addition, experience may be affected by attitudes, activity and creativity during the reception. Gabrielsson (1995) examined the effect of music which is not based on

only the interpretation of the musical elements, but also on the musical effects on consciousness and physical changes. During the examination he put emphasis on the phenomenon that everyone becomes affected by the same or different genres of music regardless of their age, gender, motivation, personality and ability. Thus he investigated the experience triggered by music. He identified the intense musical experience as cognitive, perceptual and emotional process which can manifest itself in behavioural and psycho physiological reactions. This may be determined by the current situation and recipient's personality as the current mental and physical state and the social relationships of the individual determine the establishment of the experience. The musical experience, according to Panzarella (1980), is a "peak experience", which is an intense experience of happiness. Having completed a factor analysis of musical and artistic works he determined four predominant experience effects: the renewal ecstasy, which is the world's changed perception and the motor-sensory ecstasy behind the psycho-physiological changes. The retreating ecstasy, in which only the concentration relating to art exists, and finally, the dissolving-merging ecstasy expressing the perfect amalgamation with the subject of the artwork. According to Stachó (2000), the aesthetic and emotional experience may occur following a post cognition process, which equals decoding the semantic-psychological information mobilized by the musical structure. In his approach the musical experience is the consequence of a structural analysis and neutral emotion occurs if the continuation is unknown and unexpected. If the music style is unknown to the listener, the effect is fear and tension, and so the music is less likely to evoke positive emotions. In Vitányi's view (1969), in the process of art reception the catharsis is triggered by the work itself, but the cathartic realization does not only concern the actual work, but also the entire life. In his view, in the process of reception we are not only surprised at the beauty of art, but also at the essence of some phenomenon in life conveyed by the work of art. According to him, the catharsis is an activity which makes the individual recognizes the fact that with his most unique feature he belongs to the whole society. In his approach different types of artists and listeners can be distinguished. However, none of the categories can be considered as exclusive. He thinks, the artist shapes the life into work, while the performer fills up the work with life. For him, in the process of the presentation the communication is the most important among the elements of catharsis, as opposed to recognition, symbolic action or emotional rapture.

In Vas's (2005) approaches the origin of the musicality refers to the results of psycho-biological development. In his analysis, the embryo

already has musical skills and musical memory too. The acoustic apparatus develops in the third/forth months after the conception. This enables the embryo to detect and process the sounds and the surrounding stimuli. Since most of the sensory stimuli are processed by different acoustic modality, Vas considers this to be one of the most essential resources of the developing brain. This modality can alter the cerebral activity due to the excitement conveyed by the brainstem's reticular system. According to Vas's approach the inner and outer reality harmonize emotionally in the musical experience which is partly based on the coordination of the physiological functions of the mother and embryo presumably.

Losonczy (1969) distinguishes different levels of understanding music. The levels proceed from simple to more complex and are built on one another. These levels can be evaluated objectively using the structures defined by musicology (melody, rhythm, harmony, timbre) on the one hand and the visual and textual function supporting the interpretation on the other hand. The first stage is the phase of the elementary understanding in which the text and melody go together. In the second stage the melodic line and the structure becomes more complicated. The third phase distinguishes two poles. The sight and text is still necessary for the understanding, but a more abstract nuance of meaning appears as well. The music is alone in the fourth stage and does not need any associate explanation. The fifth phase of understanding does not involve melodies which can be followed or constant rhythm schemas so the focus is on the comprehension of the musical structure. Losonczy distinguishes two types of student's behaviour. The one that perceives and listens to music and finds only relaxation in it, but is also enriched by emotions. The other conduct needs the students' mental activity, concentration and intellectual performance to interpret and process the incurred emotions. Relying on the communication domains introduced in Bense's (1965) aesthetic system Lissa (1975) distinguishes the following domains of understanding applicable to musical communication as well. The first is the level of understanding, the physical stimuli such as tone, pitch. The second is the understanding the pitch relationships and metric characteristics. The third is interpreting the organized system of music, such as following the lead voice, scales and chords. The fourth is deciphering the different musical codes and symbols, as in the case of language. This can mostly be found in illustrative music. Finally, the last one is the level of understanding the recipient's associations an previous intellectual expectations on the basis of prior knowledge (Laczó, 2003). Mrs. Csillag's research (2008) wants to get an answer to the question if the examination of elementary phenomena can lead to understanding the work of art as a whole. In her opinion, the most

determining fact in this matter is to handle and examine the relationship between the art and recipient and the momentums appearing in the process of recognition, and their concomitant phenomena equally. According to her results the psyche as a whole becomes active in the process of receiving a work of art. As the intellectual and emotional effects occur together, it is possible and necessary to examine them simultaneously to comprehend the meaning of work of art. Any attempt focusing only on the emotional or intellectual effect ignores significant components. Since the interpretation of the meaning is determined by the knowledge of the musical components and the life story of the recipient or the former music learning experiences. However, the personality components originated in the personal life and related to the emotional, associative and creative characteristics constitute the basis of the experience of identification with the work of art and have significant role in the process of understanding. Relying on Stachó (2005), Erkkila (1997) distinguishes the following resources in the field of music sense. This system specifies three parallel semantic levels. The first two are based on the emotions representing the level of vitality and psycho dynamism and the comprehension level regulated by cognitive operation. Following Stachó's idea (2005) the level of vital effects is based on the innate meanings representing different types of experience triggered by linked perceptions. They represent the „halls" of later emotions as well. The psychodynamic level consists of unique associations. The meanings depending on this cannot be universal to everyone, but they are associations related to individual events of life. Their origin cannot be accessed consciously by even more educated music listeners. The next level is the culturally evolved semantic level. In his approach you cannot enjoy music not knowing the style or the inherent code of it originated in cultural conventions. This is true of both the interpreter and recipient. Finally, the semantic level originated from the structural analysis of the music is distinguished. Accordingly, based on the structural and stylistic knowledge of music you nourish momentary expectations of the musical process which expectations generate emotions due to the fulfilment or non-fulfilment. The mimetic paradigm is applied for music by Walker (2004) and Jan (2000) in their analytical studies. In their view, the wide range of the spreading cultural phenomena was previously verified by mimesis, which is closely related to the domain of the verbal expressions. They take the minimum layer of the musical MIMEs as a basis (three or four audio configurations) to justify the key issue of the hierarchical position of MIMEs in the cultural and organizational hierarchy and on the level of the global archetypes. The mimetic paradigm is identified as an explanation of cultural

meanings. The transmission and mutation of musical MIMEs results in the development and understanding of the musical styles. In addition, the MIMEs can produce evidence concerning the possible existence of universal innate predispositions towards modal integration, which may contribute to the semantic development of music for instance. Echo (2006), psychologically examining the emotions triggered by music reached the conclusion that the musical structures and relationships provide opportunities for structural analysis. The musical elements have their own system of rules: the rhythm has its own set of mathematical rules, the pitch can be expressed by audio frequency and chords can be described in quantity. But exploring the nature of music, the world of emotions triggered by music and by the tension of the desired and produced sound should be taken into consideration. As for the subject of the artistic pleasure it is a relation between the complex of tonal stimuli being able to organize themselves and a human reaction, which can be described as cultural and behavioural models. For example, if a stimulus originated in artistic pleasure proves to be ambiguous and appears as a tendency to satisfaction resulting in crisis, while doing so, the recipient will feel necessary to find satisfaction. This situation produces emotions, because the effort to answer gets stuck. According to Hartmann's (1977) system the piece of music produced by successive sounds built on each other has significance beyond the mere sequence of sounds. He distinguishes three background layers of interpreting music. The first is the level of students' co-vibration, which is present in the rocking of dance music and which enchants the listener. The second layer is the one that upsets the listener's soul. Characteristically it brings to the surface hidden things and it is highly differentiated and unique. The third is the metaphysical domain. In compliance with its nature this is the domain of anticipating inevitable contents perceived vaguely. However, this layer can be detected rarely.

According to Vist (2011) the musical experiences are connected with emotional literacy in most cultures, since we can gain information about our emotions through musical experiences. Music appears as a mediator in this process. Adult interviews about musical experiences reflecting the emotional literacy and learning culture in early childhood demonstrate the role of music as moderator between the child and caretaker which affects the interaction and emotional accessibility. Thorgersen confirms the opinion (2011) that the musical knowledge increases by the expression of musical experiences while we create or recreate them. The literature concepts, specifications and their quality should be used as database to make us capable of responding to them and of discussing the experiences as authentically as it possible. However,

Thorgensen states, this is missing on the various levels of education in most instances. According to him, the multidimensional character of music explains the influence of the different styles and of the early experience of the general knowledge and of the different aspects of the responses on knowing and learning music. All of these are in connection with the tongue. Therefore, musical knowledge can be expressed and assessed, but only in the spirit of intersubjectivity. According to Savage (2006) musical taste is strongly diverse and controversial within a given society. In general, people in large groups like certain types of music, while they exclude others. In his analysis, he distinguishes two characteristic tastes of the audience. For example, rock, electronic, heavy metal fans and classical, jazz style fans. In his view, taste for concrete works can hardly outline genre preference, since the two do not seem to have close ties. According to his results, age, gender, employment status and ethnicity strongly outline certain musical tastes both for genres and concrete works.

In terms of development it is important to realize the absolute necessity of mapping the participants' personal attitudes, musical qualifications for the sake of the success to which the music semantic theory framework can give assistance (Stachó, 2005).

The empirical study.

Aims

Our goal in the process of the questionnaire is to demonstrate the independence of the musical elements from specialization, gender, and year and the stability in time through a repeated survey later ("test-retest reliability"). In addition, we study the change of the musical attitude in the professional career and the independence of the negative musical experience in it comparing the present situation to the past status through repeated examination.

Sample 0

The subjects of the sample were 60 first, second and third year students of teacher training. They are students of teacher training in a big city. Students of humanities and science were selected, in order to compare them, 30 of them specialized in music and singing and 30 students specialized in natural sciences. Among the students, 28 were male and 32 were female, and 21 visited the first year while 20 the second and 19 the third year. The selection followed the aspect of comfort, which

means the students were selected on a voluntary basis. They were the ones who had the most easily accessible personal life. Their number was determined by our practicable possibilities.

Data survey

The students completed the questionnaire twice, at the beginning and end of the school year, as part of a lesson. We informed them of the purpose of the survey, the elements of the questionnaire and the definition of the elements and the way they had to fill in the questionnaire. We tried to help their undisturbed job providing calm local conditions, and complete silence. Three years later, we asked the students to fill in the questionnaire again to carry out further interrelated investigations. We examine the status of the past and present in terms of the change in the professional life and of the negative connection with music.

Measuring Tool

First, the possible sample questionnaires and tests were discussed. Following Mrs Dombi (1992, 1999), Janurik and Józsa (2013) there were three types of tasks: comparison, aesthetic judgment and improvisation. Reviewing the tasks seemed useful on the account of theory and attitude, but since the development based on music therapy does not use the basic musical skills defined by the science of music, the specific use of them is not relevant for us.

Second, the musical components, typical of the musical precondition of the training performed by musical devices, were determined on the basis of private experiences, practical experiences and literary antecedents (Losonczy 1964, 1969). The components can be summarized in the following dimensions:

- Musical intensity: involving the quantity, quality, awareness and choice of relation to music.
- Musical activities: including the love, way, opportunity and habit of musical activity, in addition the personal assessment of aptitude.
- Musical experience: considering the quantity and the introspection level of the previous musical experiences.
- Perception of the ambient sounds: relating to their perception, love, interference and indifference to them.

As a next step, a specification table (see Table 1) was prepared on the basis of Szokolszky (2004), which contains the specified dimensions, the elements associated with them and the relevant indicators.

Table 1

Dimensions	*Elements*	Indicators
music intensity	necessity	Do you feel an urge- to listen to music every day?
	awareness	Do you listen to music accidentally or deliberately?
	choice	Does your relation to music depend on your mood or is it a daily habit?
	the degree of want	Do you miss music on a day without it?
	quantity	Are you satisfied with the musical sources available?
musical activity	love	Do you like singing?
	habit	Do you sing on your own or along with-the performer you are listening to?
	aptitude	Do you have the aptitude for playing music in you opinion?
	way	Do you sing on your own or along with the others?
	opportunity	What framework do you sing or play music in?
musical experience	expression	Have you ever felt that music expresses exactly what you feel?
	catharsis	Have you ever had cathartic experience under the influence of music?
	negative effect	Have you ever had a musical experience, which triggered negative effects?
	level	How have you experienced music?
perception of the ambient sounds	perception	What are the sounds you notice?
	love	What are the sounds you love?
	interference	What are the sounds disturbing you?
	indifference	What are the sounds indifferent to you?
previous training experiences	existence	Have you ever participated in training sessions?
	effect	If so, how did they affect you?

Specification table of the questionnaire development

The students were asked to choose the answers the most typical of themselves and offered beforehand and to fill in the questionnaire three times.

The results of the empirical study

In the process of testing the questionnaire we aimed to examine the musical elements independent of specialization, gender and grade while the repeated survey after a while wanted to prove temporal stability. In addition, a historical comparison was carried out through the third survey, demonstrating the change in the professional life and examining the independence of the decisive negative musical experience. The results are shown along the specified criteria.

Examination of the independence of musical elements

First, in the process of testing the questionnaire the relationship of the musical attitude to violence, sex and year was analyzed. This process took place at the beginning of the school year, immediately after filling in the questionnaire.

The results of the connection of the musical elements with the profession are summarized in tables 2, 3. The tables include – in accordance with the proper quality data – the test values of the Chi-square measuring the statistical relationship of the two variables and p-values +- belonging to it and indicating the significance level. Based on these results, we can say that the musical attitude measured by the elements in question is independent of the specialization no significant relationship can be revealed between them under the conditions of the cross-table. Regarding the lack of significant correlation, analysing the strength of the relationship has no purpose (Sajtos and Mitev, 2007).

The tables illustrate that each of the p-values belonging to the χ2 values is above 0.128 values at least in the dimension of musical intensity. It means that the level of significance exceeds the 5% margin of error regarding all the elements, which can verify the nil hypothesis. So there is no statistical correlation between the two variables. Consequently we can say that each element of the musical intensity independent of the student's specialization. The p-values each associated with χ2 values in dimension of musical activity are above 0.297 values. Thus, the significance level exceeds the 5% margin of error in every element, which means that there is no correlation between the two variables. Consequently, connection between the elements of musical activity and specialization cannot be revealed. The p-values associated with the χ2 values are above 0.297 at least in the dimension of the musical experience. It means that we cannot dismiss the nil hypothesis in this case either, saying that there is no correlation between the two variables. That is, judging the elements of musical experience does not depend on the students' specialization. The p-values near the χ2 value exceed 0.128 value in the dimension of the surrounding sounds which means they surpass the 5% margin error, on the basis of which it is not possible to demonstrate statistical relationships between the variables on an acceptable level. In other words, the musical attitude - regarding the surrounding sounding elements - does not depend on the students' specialization either. In the dimension of the previous training experiences – which is determining besides the musical attitude in the case of a music training program of this type - the χ2 values are between 0.005 and 2.00, while the significance level associated with them is between 0,945 and ,571???. The significance level based on the p-values surpasses the 5% margin of error in all elements, that is why the nil hypothesis cannot be rejected. In other words, there is no correlation between the two variables. Thus, nor does the existence and effect of previous training experiences depend on the specialization.

On the basis of these results, it can be said that the students' attitude to music is independent of the specialization. So the most basic, universal relationship is not determined by the fact if the students belong to the faculty of humanities - namely music – or sciences.

Table 2

	Musical Intensity		*Musical Activity*			*Musical Experience*		
element	*Chi-square*	*P-values*	Element	*Chi-square*	*P-values*	Element	*Chi- square*	*P-values*
necessity	,045	0,833	love	1,72	0,633	expression	1,08	0,297
awareness	,918	0,338	habit	,703	0,704	catharsis	0,26	0,605
choice	,322	0,570	aptitude	1,08	0,297	negative effect	,065	0,945
degree of want	,750	0,687	way	,202	0,693	level	1,64	0,439
quantity	1,75	0,187	opportunity	,766	0,858			

The relationship between the specialization and musical elements in the dimension of musical intensity, activity and experience (Chi-square)

Table 3

	Perception of the ambient sounds		*Previous training experience*		
Element	*Chi-square*	*P-values*	*Element*	*Chi-square*	*P-values*
perception	,007	,935	existence	,005	,945
love	,200	,650	effect	2,00	,571
interference	,630	,427			
indifference	2,31	,128			

The relationship between the specialization and musical elements in the dimension of perception the ambient sounds and of the previous experience (Chi-square)

Tables 4, 5 show the results of testing the relationship between the musical elements and gender. Based on these results, we can say that the musical attitude measured by the above mentioned musical elements is independent of gender and statistically significant correlations between them cannot be demonstrated. Consequently the strengths of the correlation between the variables will not be presented.

The results show that the p values near the $\chi 2$ values in the dimension of the musical intensity are above 0.142. It means that the level of significance exceeds the 5% margin of error in all elements, and the nil hypothesis cannot be rejected. In addition there is no statistical correlation

between the two variables. So the musical attitude, in terms of the intensity of the elements is independent of the students' sex. In the dimension of the musical activity each of the p-values belonging to the χ2 values is over 0.346, which means no evident relationship between the two variables. According to this nor does the musical attitude, in respect of the elements of the activity depend on the students' gender. In the dimension of the musical experience the p-values exceed the 5% margin of error, which means that statistically significant relationship cannot be demonstrated between the two variables. That is, the attitude to music, in respect of the musical experience does not depend on the students' gender. In the dimension of the surrounding sound the p-values are above 0.129 at least. Having the lack of a significant correlation, it can be stated that the musical attitude in respect of surrounding sound elements does not depend on gender either. In the dimension of the previous training experience any statistically significant correlation was not found either. Thus, the existence and effect of the previous training experience is also independent of gender.

Based on these results, we can say that the students' attitude to music is independent of their gender. So the most basic, universal musical relationship is not specified by the students' gender.

Table 4

	Musical Intensity		*Musical Activity*			*Musical Experience*		
Element	*Chi-square*	*P-values*	Element	*Chi-square*	*P-values*	Element	*Chi- square*	*P-value*
necessity	,336	,562	love	3,20	,361	expression	,890	,346
awareness	,424	,515	habit	1,56	,456	catharsis	,820	,356
choice	2,15	,142	aptitude	,890	,346	negative effect	,808	,369
degree of want	1,82	,401	way	,449	,503	levels	3,74	,154
quantity	2,03	,154	opportunity	1,71	,633			

The relationship between the gender and musical elements in the dimension of music intensity and activity (Chi-square)

Table 5

	Perception of the ambient sounds		*Previous training experiences*		
Element	*Chi-square*	*P-value*	*Element*	*Chi-square*	*P-value*
perception	2,30	,129	existence	,019	,890
love	1,68	,194	effect	4,03	,257
interference	,018	,976			
indifference	,057	,811			

The relationship between the gender and musical elements in the dimension of perception the ambient sounds and of previous experiences (Chi-square)

Tables 6,7 present the results of testing the relationship between the musical elements and year. The results demonstrate that the attitude to music measured by means of the above mentioned musical elements is independent of the year and statistically significant correlations between them cannot be demonstrated.

In the dimension of the musical intensity the level of significance belonging to the χ2 values exceeds the acceptable 5%, margin of error in respect of each element, so the nil hypothesis can be rejected and statistical correlation between the variables cannot be stated. Consequently, the musical attitude in respect of the elements of intensity does not depend on the students' year. In the dimension of the musical activity the p-values are also found over 0,305 and there is no correlation between the two variables. It means that the musical attitude, regarding the activity does not depend either on the year the students are in. In the dimension of the musical experience the same can be stated about the p-values next to the χ2 values as in the previous dimensions. So the musical attitude regarding the elements of musical experience does not depend on the students' year.

In the dimension of the surrounding sounds and previous training experience the significance level belonging to the χ2 test values also goes beyond the level of 5% margin of error. Therefore, the perception of the surrounding sounds and the existence and impact of the previous training experience is also independent of the specialization.

Based on the results, we can say that the students' attitude to music is independent of their year. That is, the most elemental, universal relationship is not determined by the year the students are in or the time they have spent in higher education.

All in all, the attitude to music is independent of the specialization, gender and year. It means that the items of the questionnaire appear reliable to evaluate the musical attitude measured by the elements in question regardless of specialization, gender and year.

Table 6

	Musical Intensity		*Musical Activity*			*Musical Experience*		
Element	*Chi-square*	*P-values*	Element	*Chi-square*	*P-values*	Element	*Chi- square*	*P-value*
necessity	,241	,932	love	2,78	,853	expression	1,63	,441
awareness	1,23	,539	habit	1,86	,761	catharsis	2,43	,299
choice	,310	,856	aptitude	2,37	,305	negative effect	,248	,883
degree of want	2,94	,567	way	1,61	,446	levels	3,00	,556
quantity	,899	,638	opportunity	5,89	,435			

The relationship between the year and the musical elements in the dimension of music intensity, activity and experience (Chi-square)

Table 7

	Perception of the ambient sounds		*Previous training experience*		
Element	*Chi-square*	*P-value*	*Element*	*Chi-square*	*P-value*
perception	1,90	,387	existence	,689	,708
love	,493	,782	effect	5,08	,536
interference	1,49	,474			
indifference	,582	,747			

The relationship between the year and the musical elements in the dimension of perceiving the ambient sounds and of the previous training experience (Chi-square)

Time stability testing

At the end of the school year we asked the students to complete the questionnaire again testing the temporal stability by means of repeated surveying. We wanted to know the degree of the coincidence of the two evaluations.

Tables 8, 9 summarize the results of the examination of the stability in time including every single element of the dimensions one by one. The tables contain the Cronbach's Kappa values indicating the degree of the coincidence of the two evaluations and the correlation in percentage form.

The mentioned indicator can be applied well to express the degree of the coincidence of the two evaluations in the case of qualitative data. At the same time it does not deal with the possible missing data and the situation when one of the reviewers never uses the code the other does. As this situation is not possible in our case, the indicator can be used in the examination. The Kappa's value is expanded with the percent agreement values, to prevent the use of misleading Kappa values. It occurs when the variability of the data is missing and a member of the team evaluating the results uses a dominant code. The random matching must be avoided when considering the percentage connection and the lack of data variability and dominance of the code must be precluded previously. That is, why it is necessary to take into account both the two values when calculating the degree of the coincidence.

The results show that the Kappa indicators expressing the degree of the coincidence range from 0.860 to 1.00. That is, the values are above 0.81 and in many cases they reach the maximum (1.00) match. Consequently, it can be declared that the values range almost in the interval of the perfect coincidence at least, according to Viera and Garrett (2005). This is confirmed

by the extremely high values of around 90% percent coincidence. This characteristic is typical of every single element.

In the dimension of the musical intensity the conscious choice of the contact with music showed the highest and the quantity of music the least coincidence of the two evaluations. It means that the students preserved their judgement of the awareness of getting in contact with music the most and of the quantity of music the least during the time between the two surveys. In the dimension of the musical activity the personal judgement of musical talent appeared the most stable. The pursuit of music showed the least degree of the connections among the evaluations. So the students judged the type of musical activity completed by them differently after a while, besides the stability of judging their own personal aptitude. In the dimension of the musical experience the two evaluations on the level of reception are perfectly identical, while the judgment of the musical experience harmonizing with the current mood shows a slightly less agreement. It means that the reception level of the students based on their earlier judgement did not change as the time went on. The result harmonizes with our practical and personal experience since to change the ability of perception musical experience needs a conscious training enriched by the aspects of depth psychology or the conscious control of a reliable expert. All these do not depend on a professional musician's statement after practicing music or having a concert when they say "I had a good practice and it was a nice concert, because I felt it had expressed my mood". The evaluation of the surrounding sounds and previous training experiences also show a perfect match over the time. It is worth mentioning, that the answers to these elements are the most similar among the questionnaire items. The explanation of the coincidence regarding the evaluation of the surrounding sounds is supported by the fact, that a conscious semantic-psychological training is necessary to modify the evaluation of the sounds around us. The agreement of judging the previous experiences demonstrate - in our opinion –, that there was no change in the number of the students who had the experience of the training possessing the same mechanism of action. The lack of developing programs in teacher training is likely responsible for this. On the other hand, based on practical experiences we can say that the opinion of the developing programs is very stable, and only another very high efficiency training can surpass it in time. So we can say that the students' judgements regarding the questionnaire elements show the high level of coincidence at least, which sometimes achieves the perfect level. It means, the questionnaire in the aspect of time stability can be used reliably.

Table 8

	Musical Intensity		*Musical Activity*			*Musical Experience*		
Element	*Kappa*	%	Element	*Kappa*	%	Element	*Kappa*	%
necessity	,878	90,0	love	,880	90,7	expression	,902	94,3
awareness	,918	92,3	habit	,868	90,0	catharsis	,918	92,7
choice	,930	93,7	aptitude	,899	92,7	negative effect	,930	93,0
degree of want	,910	91.0	way	,892	91,8	levels	1,00	100
quantity	,880	90,7	opportunity	,860	90,0			

Time agreement level in the dimensions of musical intensity, activity and musical experience (Cronbach's Kappa, percentage agreement)

Table 9

	Perception of the ambient sounds		*Previous training experience*		
Element	*Kappa*	*%*	*Element*	*Kappa*	*%*
perception	1,00	100	existence	1,00	100
love	1,00	100	effect	1,00	100
interference	1,00	100			
indifference	1,00	100			

Time agreement level in dimensions of perceiving the ambient sounds and of the previous training experience (Cronbach's Kappa, percentage agreement)

Comparison of the two situations

Three years later the same survey was completed among the students who were in various stages of the process of becoming an educator at that time. All this happened in order to compare the two situations. The aspect of comparing the second and third survey was to see if the participants had significant negative musical experience or any professional changes happened to them over time. The existence or lack of the dominant negative musical experience and the type of change in the professional life is introduced in the upper lines of the table. In this case we highlighted the question regarding the negative impact of music in the last three years, asking particular questions.

The results in tables 10, 11 show the correlation of the judgements depending on the presence or absence of the negative musical experience. The tables include the Chi-square test values expressing the correlation between the compared situations in accordance with the qualitative data. In addition, in the case of a significant relationship they contain the Phi / Cramer's V values (Cheesey and Mitev, 2007) indicating the connection strength, applicable in the case of symmetric variables and appropriate for the size of the crossable.

From the table it can be said that the relation of the two codings is significant on P <0.001 level considering every element in the case of the negative musical experience. The correlation of the participants' two evaluations is statically significant on the highest level, regardless of experiencing negative musical experience or not. This is confirmed by the very high Phi / Cramer's V values around and above 0.8 expressing the strength of the connection. In the dimension of the musical intensity the p-values for the $\chi 2$ test values do not exceed the 0,001 level in the case of any element, which means that the nil hypothesis can be rejected at the highest level of error margin. So the two evaluations concerning the musical intensity are connected with each other regardless of experiencing negative musical experience or not by the students. On the basis of the indicator expressing the strength of the connection, the quantity of getting in relation with music is the strongest while its necessity shows the slightest connection between the two judgements. The students seem to judge about the opportunity of playing music similarly to a greater extent than about the demand for it. In the dimension of musical activity the p-values for the $\chi 2$ test values are $p < 0.001$ concerning every element. That is, the two assessments in respect of musical activity are also linked regardless of experiencing negative musical experience or not. In this case, it was found that the way of evaluating of the involvement in music shows maximum connection strength over time. In addition, concerning the judgement of the personal aptitude we found no relevant statistical differences. Thus, in evaluating the form of playing music and the musical talent there was no change between the two assessments, regardless experiencing negative musical experience or not by the students. A further result of this dimension is that to have opportunity for dealing with music shows a stronger correlation than the habit or love, in both cases. So there was a bigger difference in judging the love and habit of music than in judging the opportunity over time. In the case of the musical experience there is a highest-level connection in the students' self-assessment between the two stages. That is, the two evaluations are connected in respect of the musical experience regardless having negative musical experience or not. In addition, it can be stated that relevant difference does not seem to appear on the level of the musical experience and of its relation to the current psychological status in either case. This situation was not influenced by the fact if the students had negative musical experience or not between the two surveys. As for the evaluation of the surrounding sounds and the existence or impact of the previous training experience no relevant difference can be seen between the two assessments in either case. That is, the negative

experience of music did not specify the students' opinion about the ambient sounds and possible training experience.

The results demonstrate that the attitude to music evaluated by means of the elements applied in the survey is not determined by the negative experience of music. Thus, the questionnaire items can be reliably used to judge the musical attitude specified by our elements in terms of the independence of the negative musical experience.

Table 10

	Negative musical experience-				Negative musical experience +		
Dimension	*Element*	*Chi-square*	*Phi/Cramer V*	*P-value*	*Chi-square*	*Phi/Cramer V*	*P-value*
Musical intensity	necessity	12,59	,793	.000	19,48	,698	,000
	awareness	14,70	,852	,000	15,00	,866	,000
	choice	12,53	,792	,000	14,62	,855	,000
	degree of want	28,88	,850	,000	61,81	,879	,000
	quantity	15,55	,882	,000	31,11	,882	,000
Musical activity	love	35,38	,852	,000	63,98	,730	,000
	habit	27,87	,853	,000	58,32	,854	,000
	aptitude	n.s.			n.s.		
	way	20,00	1,000	,000	40,000	1,000	,000
	opportunity	29,44	,858	,000	103,9	,931	,000

Correlation with the past state in terms of the negative musical experience, in the dimension of musical intensity and activity (Chi-square, Phi / Cramer's V)

Table 11

	Negative musical experience-				Negative musical experience+		
Dimension	*Element*	*Chi-square*	*Phi/Cramer V*	*P-value*	*Chi-square*	*Phi/Cramer V*	*P-value*
Musical experience	expression	20,000	1,00	,000	n.s.		
	catharsis	12,59	,793	,000	34,44	,928	,000
	levels	40,00	1,00	,000	80,00	1,00	,000
Perception of the ambient sounds	perception	20,00	1,00	,000	40,00	1,00	,000
	love	20,00	1,00	,000	40,00	1,00	,000
	interference	20,00	1,00	,000	40,00	1,00	,000
	indifference	20,00	1,00	,000	40,00	1,00	,000
Previous training experience	existence	20,00	1,00	,000	40,00	1,00	,000
	effect	20,00	1,00	,000	40,00	1,00	,000

Correlation with the past state in terms of the negative musical experience, in the dimension of the musical experience, perception of the ambient sounds and the previous training experience (Chi-square, Phi / Cramer's V)

Tables 12, 13 introduce the results of the correlation between the evaluations regarding the changes in the professional life.

Based on these results we can say that in the case of interrupting the studies the relationship between the two judgements is significant on $p < 0.001$ level considering every element. So the nil hypotheses,

presuming no relation between the two evaluations, can be rejected. It means that the two judgements have significant correlation in case the students suspend their studies. There is no relevant difference demonstrated between the two evaluations concerning the personal judgement of the musical aptitude and the way of the musical activity or the previous training experience. It means that interrupting the studies does not modify the assessment completed in the domain of the personal judgement of the musical aptitude, of the way of the musical activity and of the existence or impact of the previous training experience. The two assessments have a relationship of maximum strength while judging the involvement level of the musical experience and evaluating the surrounding sounds. That is, interrupting the studies changed the students' evaluation of the surrounding sounds and their opinion about the involvement level of the musical experience in the least. A further result represents that judging the conscious choice of getting into contact with music showed the strongest connection between the two evaluation processes in the case of the students interrupting their studies. So regardless of having suspended their studies, the students evaluated the awareness of choosing the music the most similarly over time. Judging the love of the musical activity showed the biggest modification.

In case of enrolling at a second specialization the two evaluations are significant also on the highest quality level. Therefore, the nil hypothesis presuming no correlation between the evaluations can be rejected. It means the judgment of the musical attitude is significantly correlated to enrolling at a new specialization. Concerning the personal judgment of the musical aptitude no statistically relevant difference can be seen between the two evaluations, very similarly to the case of the students interrupting their studies. That is, enrolling at a second specialization modifies the personal judgement of the musical aptitude in the least between the two evaluations. A connection of maximum strength is found in the dimension of evaluating the surrounding sounds and of the previous training experience. So the extra specialization did not alter the evaluation of these elements. In addition, the way of dealing with music showed the strongest and the harmonization of the musical experience with the current atmosphere the slightest connection between the evaluations. That is, the biggest difference can be found in judging the coincidence of the musical experience and current atmosphere in the case of the students attending a second specialization while less difference is manifested in judging the form of playing music. The correlation, however, is statistically significant even in this way.

According to the data, suspending the studies and enrolling at a second specialization does not modify significantly the judgement of the attitude to music between the two evaluations. So the questionnaire items can be used reliably in terms of independence of suspending the studies and attending a second specialization.

Table 12

		Change in the professional life					
		Interrupting the studies			Second specialization		
Dimension	*Element*	*Chi-square*	*Phi/Cramer V*	*P-value*	*Chi-square*	*Phi/Cramer V*	*P-value*
Musical intensity	necessity	47,66	,887	,000	47,26	,862	*,000*
	awareness	57,63	,928	,000	45,45	,870	,000
	choice	52,10	,952	,000	43,23	,826	,000
	degree of want	91,82	,875	,000	91,87	,875	,000
	quantity	47,16	,887	,000	41,16	,887	,000
Musical activity	love	98,67	,792	,000	98,97	,742	,000
	habit	86,25	,884	,000	86,25	,848	,000
	aptitude	n.s.			n.s.		
	way	n.s.			54,23	,951	,000
	opportunity	51,33	,917	,000	151,3	,917	,000

Correlation with the past state in terms of change in the professional life in the dimension of musical activity and intensity (Chi-square, Phi / Cramer's V)

Table 13

		Change in the professional life					
		Interrupting the studies			Second specialization		
Dimension	*Element*	*Chi-square*	*Phi/Cramer V*	*P-value*	*Chi-square*	*Phi/Cramer V*	*P-value*
Musical experience	expression	29,49	,871	,000	29,49	,701	,000
	catharsis	48,00	,892	,000	48,00	,894	,000
	levels	5,000	1,00	,000	120,0	1,00	,000
Perception of the ambient sounds	perception	5,000	1,00	,000	60,00	1,00	,000
	love	5,000	1,00	,000	60,00	1,00	,000
	interference	5,000	1,00	,000	60,00	1,00	,000
	indifference	5,000	1,00	,000	60,00	1,00	,000
Previous training experience	existence	n.s.			60,00	1,00	,000
	effect	n.s.			60,00	1,00	,000

Correlation with the past state in terms of change in the professional life in the dimension of musical experience and of perceiving the surrounding sounds and of previous training experiences (Chi-square, Phi / Cramer's V)

In tables 14, 15 we can find the results of the correlation of the evaluations in terms of change in the professional life.

The results showed that in the case of employment the correlation between the two evaluations concerning each item is significant on the highest p <0.001 level with a high connection strength about 0.8 and above, or the maximum (1.00).> in most cases. There is no relevant statistical difference demonstrated in the necessity of the musical intensity, and in the

personal judgement of the musical aptitude or in the harmonization of the musical experience with the current mental state. It means that the students' evaluation did not change either concerning the demand of getting into contact with music and the judgement of the musical aptitude or the concurrence of the musical experience and mood. The employment influenced the judgement of these elements in the least between the two evaluations. A relationship of maximum strength was found between the two evaluations in respect of the awareness of getting into contact with music and of the way and framework of dealing with music, moreover of the involvement levels of the musical experience and of the evaluation of the surrounding sounds. The employed students evaluated the awareness of choosing music and the framework or conditions of playing music, moreover the level of perceiving the musical experiences in the same way. Besides this, concerning the other elements, the biggest contact strength manifests itself in judging the habit of dealing with music and the slightest one in evaluating the cathartic musical experience. The employed students seem to judge the cathartic experience in a different way although they had the same opinion about the level and expression of the musical experience as previously. Despite the change the relationship is still significant.

Concerning the lack or existence of the degree/certificate the relationship between the two evaluations is also significant. There is no statistically relevant difference seen in the judgements relating to the quantity of getting into contact with music and to the musical aptitude, moreover to the harmonization of the musical experience with the current state of mind. The judgements of these elements in the case of the lack of degree did not alter over time. In addition, a relationship of maximum strength was found between the evaluations in respect of assessing the involvement level of the musical experience and the surrounding sounds and the previous training experiences. So, in the case of the lack of degree the students had a similar opinion to the previous one concerning the level of the musical involvement and the way of perceiving the different surrounding sounds and the previous training experiences. As for the other elements, the way of playing music possesses with the closest relationship while the judgement of the cathartic experience has a weaker one, similarly to the results in the case of employment. As for the other items, the closest contact can be found with the way of playing music and the weaker one with judging the musical cathartic experience- as in the case of employment. So the students' self-evaluation shows the biggest difference between the two evaluations regarding the judgement of the cathartic experience, but despite this the connection is still significant.

That is, it can be said, the lack of degree or the employment had no significant effect on the evaluation of the musical attitude. The questionnaire items can be used considering the independence of the employment or the lack of degree.

Table 14

		Change in the professional life					
		Employment			Lack of degree/Certificate		
Dimension	*Element*	*Chi-square*	*Phi/Cramer V*	*P-value*	*Chi-square*	*Phi/Cramer V*	*P-value*
Musical intensity	necessity	n.s.			7,98	,860	,000
	awareness	20,00	1,00	,000	8,40	,870	,000
	choice	26,11	,842	,000	6,730	,830	,000
	degree of want	25,00	,791	,000	18,09	,865	,000
	quantity	20,00	1,00	,000	n.s.		
Musicl activity	love	39,76	,814	,000	10,00	,890	,000
	habit	28,95	,851	,000	10,54	,898	,000
	aptitude	n.s.			n.s.		
	way	20,00	1,00	,000	6,40	,941	,000
	opportunity	20,00	1,00	,000	n.s.		

Correlation with the past state in terms of change in the professional life in the dimension of musical intensity and activity (Chi-square, Phi/Cramer's V)

Table 15

		Change in the professional life					
		Employment			Lack of diploma/Certificate		
Dimension	*Element*	*Chi-square*	*Phi/Cramer V*	*P-value*	*Chi-square*	*Phi/Cramer V*	*P-value*
Musical experience	expression	n.s.			n.s.		
	catharsis	10,58	,729	,000	10,70	,789	,000
	levels	40,00	1,00	,000	5,00	1,00	,000
Perception of the ambient sounds	perception	20,00	1,00	,000	6,730	1,00	,000
	love	20,00	1,00	,000	6,730	1,00	,000
	interference	20,00	1,00	,000	6,730	1,00	,000
	indifference	20,00	1,00	,000	5,00	1,00	,000
Previous training experience	existence	20,00	1,00	,000	5,00	1,00	,000
	effect	20,00	1,00	,000	5,00	1,00	,000

Correlation with the past state in terms of change in the professional life, in the dimension of musical experience and of the perception of the ambient sounds and of the previous training experience (Chi-square, Phi/Cramer's V)

Overall the results demonstrate a significant correlation between the two evaluations in respect of changes in the professional life and of the type of changes. It means the type of changes in the professional life did not modify the students' evaluation over time. According to the questionnaire items their judgements are connected significantly concerning any type of changes in the professional life.

Resume

This paper introduced the functional suitability of our questionnaire by means of a pilot study which examined the basic attitude to music among the students of teacher training. The measuring device was prepared for a training program being under elaboration and using the devices of music therapy. The program is expected to develop the emotional elements of the social competence of the students participating in teacher training. The questionnaire developed in the process of previous training experiences and included the following dimensions: musical intensity, activity, musical experience and perception of the surrounding sounds. The exploration of the background characteristics and the development of the musical devices and methods used in the process of the program necessitate the examination of these elements. The elements of the existence and impact of the previous training experience also appear since they can modify the factors typical of the same initial level and development, therefore an experience of this kind is a disqualifying reason.
The operation of the selected items in the questionnaire was explored through self-characterization. The students had to choose the most typical option of themselves given beforehand. There were three possibilities to fill in the questionnaire: at the beginning and end of the school year and three years later.

The results of the survey, examining the elements characteristic of the attitude to music and the relationship between the specialization, gender and sex, demonstrate that the significance level of the Chi-square test exceeds the acceptable 5% margin of error in the case of every dimension and of every element of it. That is, a significant connection is not represented between the students' attitude to music and their sex, year and specialization. It means that the students' evaluation does not depend on the characteristics mentioned above concerning the elements of the musical attitude.

Regarding the analysis of the temporal stability the Cronbach's Kappa values, expressing the degree of the coincidence of the two evaluations, move above 0.81 and reach the maximum (1.00) value in the case of several elements. These are the elements of the dimension of the involvement in the musical experience and of the perception of the surrounding sounds and of the previous training experiences. Thus we can reach the conclusion that the values can be found in the interval of an almost perfect match. This is confirmed by around 90% values of the coincidence. The results account for the reliable use of the questionnaire concerning the temporal stability.

The analysis of the relationship with the past was evaluated in respect of the students' possible significant negative musical experiences between the second and third judgements. According to the results, the connection of the evaluations is significant on $p < 0.001$ level in every dimension and in every element of the dimensions. No statistically significant difference is represented between the two evaluations concerning the personal judgment of the musical aptitude and the expression of the musical experience. A relationship of maximum strength appears between the two judgments in respect of the elements representing the involvement level of the musical experience and the assessment of the ambient sounds. The correlation of the students' second and third judgement compared to each other is significant statistically on the highest level, regardless of the students' possible negative experience connected to music. This is confirmed by the very high Phi / Cramer's V values, expressing the connection strength, around and above 0.8.

The second and third evaluation was compared in the aspect of the types of changes in the students' professional life over time. The results show, the connection between the two evaluations is significant on $p < 0.001$ level concerning every element, regardless of interrupting the studies or enrolling to a second specialization. In the case of suspending studies no significant difference was seen concerning the elements of the personal judgement of the musical aptitude and of the type of the musical activity or of the previous training experiences. No difference was found in assessing the musical aptitude in the case of enrolling to a second specialization. A significant correlation of the finest $p < 0.001$ level with a high connection strength of about and above 0.8 or in the most cases of a maximum (1.00) is represented in the case of employment or lack of degree. As for the employment, no statistically relevant difference is demonstrated while evaluating the necessity of the musical intensity and the expression of the musical experience or the personal judgement of the musical aptitude. Analysing the evaluations in the case of lack of degree there is no significant difference either in several elements. They are: the quantity of the musical intensity, the personal judgement of the musical aptitude, the opportunity of the musical activity and the expression of the musical experience. So the results guarantee the reliable use of the questionnaire items concerning the independence of the negative musical experience and the changes in the professional life.

Overall the questionnaire is reliably suitable for evaluating the students' basic musical attitude under the conditions mentioned above. The positive change of the students' judgements manifested in the responses demonstrates the development and expresses a deeper musical relationship as well.

However, it has to be mentioned that apart from the extremely good results, the research had its own bounds: the slight possibility of sampling and the extreme difficulty of specifying the musical elements. The voluntary principle of the application is necessary for both testing the measuring device and the actual training program since the direct regulation can modify the impact degree of the development or the same initial level shaped as a methodological expectation between the experimental and control group. Moreover, the voluntary intention of participating is typical of a training program of this kind. We tried to find starting points relying on literature concerning the elements specifying the musical attitude and to use the literary specification in harmony with the practice and intention of our own developing training program involving our decennial practical experiences as well.

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