ÉVA PÉTER¹

SUMMARY. The contemporary pedagogic view takes into consideration the varied skills the various pupils have. Therefore it considers that the teaching material and the methods used in musical education need to be established having in view the abilities and level of development of each individual to be educated. In the following I will present factors that make differentiation in musical education necessary, respectively the classical local methods and new foreign methods by which differentiation in musical education can be achieved.²

Keywords: differentiation in musical education, alternative methods for teaching music, skill development, creativity, divided attention, the principle of gradualism.

The aim of musical education in primary and middle school is setting the basics for a musical culture open to the musical world around it. Music teachers need to create the future concert attendants. The contemporary pedagogic view needs to take into consideration the individual features of pupils, the particularities in the development of the personality of each pupil. Differences appear because each person has a specific rhythm in his or her biological development, on the one hand and because of the environment a pupil grows up in, on the other hand, some factors in this environment having a significant effect. Positive results can be achieved only if the teacher is able to pay attention to each individual during a teaching session, if he or she teaches the teaching material in a way that it would address the unique features of each pupil, but at the same time assists the development of the entire class aiming to bring about development in the long-term by each class. In order to achieve such aims contemporary methods need to be practiced, which are effective and provide musical education based on individual experiences.

There are several arguments sustaining the necessity of differentiation in musical education:

¹ Babes-Bolyai University, Faculty of Reformed Theology, Musical Pedagogy Department, RO-400535, Cluj-Napoca, Hores str. 7. E-mail: evapeter@hotmail.com

² The paper hereby was delivered on the 22nd October 2010 in Cluj-Napoca, at the Faculty of Reformed Theology of the Babes-Bolyai University at a conference having The Role of Music in Pedagogy and Healing as a subject.

a) Musical skills of pupils attending music class in primary and middle school are quite varied. The music teacher has a varied group of pupils to teach. Some pupils have an excellent sense for rhythm, others can sing well or have an ear for music or have a good memory for music. But many pupils have a poor range of voice, intonate falsely, have little sense for rhythm or a poor memory for music. Thus we have the pupil whose range of voice is a couple of notes, the pupil with an average musical skill and the exceptionally talented pupil all in one class. The task of the music teacher is to reveal and develop the musical skills of all these pupils.

b) It is quite frequent that parents provide their children an opportunity to learn how to play an instrument. Pupils who can play the piano, the violin, the treble recorder, the guitar can be found in almost every class of the middle school, in every age group. These pupils have a more developed sense and knowledge of music than the average pupil. They can read music, solmizate, are familiar with the theory of music and the history of music, therefore they are able to complete even more difficult musical tasks. The teacher needs to adapt also to the level of these students, otherwise he or she will not be able to hold their attention.

c) A special part of our attention in music teaching should be dedicated to the physically and mentally disabled children and those who have some kind of emotional disorder. Musical education helps greatly the intellectual development of these children, it helps improve their mood and integration into society. There are special schools for these children, but parents sometimes decide public school would be better for them. Therefore one can come across pupils with slighter physical disabilities or emotional disorders also in the primary and middle school. The aim of the teacher in this case also is to strengthen the selfconfidence of these pupils and develop their skills by using proper methods, exercises for their development and by encouraging and praising them.

Before deciding on the methods the teacher needs to assess the musical skills of the pupils in a class³, he or she needs to find out what the level of their knowledge in music is so that he or she can compare each pupil to their former achievement.

Some assessable phenomena are:

³ Assessment of musical skills started in the 19th century. The specialized literature designated Carl Strumpf, later Th. Billroth, Wilhelm Maximilien Wundt, W.E. Scripture, C.E. Seashore as the pioneers of this field; the pioneers of the Hungarian musical skill assessment are Géza Révész, Sándor Kovács, Margit Varró, Elemér Gyulai and Endre Szögi. Assessment focused mainly on the memory for melody and rhythm; on the ability to differenciate between intervals and pitches and later took into consideration also the sense for tonality, an ear for harmony and the ability to live the mood expressed by the music. See: Dombi Józsefné Kemény Erzsébet, A zenei képességvizsgálatok kézikönyve (A Manual for Musical Skills' Assessment), SZOTE Nyomda, Szeged, 1999, 7-9; 37-50.

- 1. Spacial perception of music: differentiating between higher and lower pitches⁴;
- 2. Temporal perception of music: the problem of rhythm⁵;
- 3. A sense for dynamic degrees: quiet, loud, gradual increase or decrease of volume;
- 4. The ability to recognize the timbre of the voice;
- 5. Starting on the accurate note: both on the proper pitch and at the proper time;
- 6. Clear intonation;
- 7. The ability to sing along with someone else;
- 8. Musical formation: correct breathing, which will create the units of the musical form;
- 9. Expressivity;
- 10. Creativity.

Classic methods

Spatial representation of the pitch can be performed by movements of the body and arms. Raised arms, laterally stretched arms, standing position or crouching down all represent different pitches. This is called a living piano. Small children like to move a lot, therefore representing various pitches with spatial movements meets this need as well. A classic method for representing pitches is using the letter representing the sound along with a gamut, scale or "note" tower. This method is frequently used in teaching the sounds of the pentatonic. As long as pupils sing using only two or three pitches scores with one or two lines are used. This makes it easier to use the score. One of the spectacular methods is solmization by signs of the hand and the association of the five-lined score with the five fingers of a hand, a precedent for this is the Guido-hand in the Szalkai Codex. These exercises prepare pupils to be

⁴ An ear for music is the foundation for any other special musical skill. An ear for music is not the only precondition for a development in music, but certainly and absolutely necessary one. The extent at which one has an ear for music is influenced by anatomic-physiologic features, but also precedents in functional development. There are people with perfect pitch and a relative pitch. Perfect pitch is a special case, there are fairly few people who have perfect pitch. Relativ pitch is a common musical skill, developing relativ pitch is one of the most important tasks of musical education. An active ear for music needs to be developed in such a way that this would be the foundation for the evaluation and feeling of musical pieces. More on this subject in: Michel, Paul: A zenei nevelés lélektani alapjai (Psychological Bases for Musical Education), Zeneműkiadó, Budapest, 1974, 53-70.

⁵ Rhythm can be sensed even without musical education. The sense for rhythm is assisted by a natural urge for movement we have. One is able to remember rhythms that have been sung, one is able to feel the difference between various types of periods, even if we cannot pair these up with their technical term. This basic skill needs to be formed into a more refined skill through musical education.

able to read five-lined scores. Tunes can be represented also by a combination of figures. In this case each pitch is designated a different number depending on the initial note. The score of letters containing both names of notes and an illustration of the rhythm can be successfully used to teach beginners. Zoltán Kodály's exercises for score reading using a score of letters are famous worldwide. The teacher can introduce also vessels of glass filled with water in the case of which the level of the water produces a different pitch. This is a method by which the teacher can motivate also pupils who do not like music. Using several methods during a class will allow each pupil to also do exercises using devices and methods according to his or her own level and to familiarize him or herself parallel with other devices and methods that require a higher level of musical knowledge.

A method to develop an ear for music is polyphonic singing. When having pupils sing pieces of drone-bass and bagpipe accompaniment or do melody ostinato the teacher can divide the class of pupils into 2-3 groups of singers. When singing canons pupils will form groups of singers again. In the course of these exercises pupils need to pay attention besides their own part to the part sung by their fellow singers. Thus pupils hear, sense and follow several tunes while singing the one they are supposed to. It could be said that this exercise helps pupils develop divided attention. Beginners can sing an easier tune matching their abilities while having the chance to hear, sense, try out also a more difficult tune sung by an advanced learner of music.

Development of a sense for rhythm is founded by games involving singing, having pupils exercise uniform steps and movement to a certain rhythm. Exercises that teach children how to sense uniform beat are already part of the kindergarten curriculum, yet these exercises need to continue later as well, since while singing along with others sensing the uniform beat of the music is very important in keeping the tempo. Exercises having students sense the uniform beat need to go on for years. Besides this the teacher has the task that is only seemingly easy to make pupils feel the rhythm of the songs, have them recognize and clap out the patterns of rhythm or at advanced level have them beat out a rhythm ostinato while singing. Applying all these while keeping the tempo is a serious task which requires full concentration. Yet pupils' skills can develop quickly in this respect if the teacher gives them exercises fit for their ability and follows the principle of gradualism in choosing those exercises.

There are pupils who can easily understand and learn the lyrics, others find that difficult. Understanding and memorizing the lyrics can be enhanced by an expressive picture or a specific object. The teacher can also have students sing the song by roles, thus they will live the message of the song and learn better how to express themselves. Drama pedagogy also helps pupils socialize, for they need to collaborate. Connecting movements and singing is benefic for pupils who suffer from anxiety and shyness. It can be the beginning for

recovery for them. Movement eases up shyness: before he or she knows it the pupil will join in the singing, even pupils who do not usually like to sing. Even the unwilling will sing, for a group activity where everyone is singing encourages the individual, too. Music and singing can bring about positive changes also in the personality development of the children.⁶ Introducing folk dance classes in the curriculum of weekly activities will also help develop singing skills and a sense for rhythm. Benefic, developing elements of dancing are used even for the skill development of the blind and partially sighted.⁷

The conception of Kodály places music at the center of the education of children. His saying that musical education of children should start before birth is world famous. In musical education for primary and middle school he emphasizes especially singing and later listening to music.⁸Kodály thinks having direct contact with music is more important than the theory of music. Through the exercises he suggests he provides a varied skill development process dealing with: a sense for rhythm, an ear for melody and harmony, a sense for tonality, memory, a sense for musical form, creativity. The teaching of theory depends on the level of skill development. Kodály uses solmization in teaching reading and writing of scores, since it helps clear intonation and develops abstract thinking. Kodály's method brought a great change in the curricula of musical education, opening a whole new age: he chose folklore as the main musical material for his teaching. He held the best pieces of folklore at the same value as musical pieces written by classical composers.

Educational methods abroad

Since the 20th century there has been a great variety in musical education abroad. The excellent Hungarian music teacher living today, Erzsébet Szőnyi writes in her book: "Traditional musical education with a familiar structure generally practiced mostly in the last century has started to gradually change and transform since the beginning of this century. First changes were partial and had a narrow range effect, later change was practiced on an ever larger area, while today musical education is characterized rather by change and

⁶ See: Kokas, Klára, Képességfejlesztés zenei neveléssel (Skill Development by Musical Education), Zeneműkiadó, Budapest, 1972, 6.

⁷ The Psalmus Humanus Artpedagogy Association organized at Budapest on the 6-7th March 2004 a National Artpedagogy Conference. At the conference lectures and practical presentations were made regarding among other things the effect learning to dance has on the musical and general development of blind children. Written versions of these lectures can be found in the volume of the conference published with the title *Integrált művészeti nevelés az iskolában és a családban (Integrated Artistic Education at School and in the Family)*, Psalmus Humanus, Budapest, 2006. In the following: Psalmus Humanus 2006.

⁸ An important element in the conception of Kodály is emphasizing the developing effect ot singing, since singing leads most directly to living the music and understanding it. Every healthy human body is equiped with this "instrument" and it is an appropriate tool for expressing the emotional content.

variety than constant practice."9 In the following several methods created by well-known foreign music teachers will be presented. These methods have proved to be highly successful. In the paper hereby I shall emphasize some of the characteristic features of the methods.¹⁰

Maurice Martenot¹¹ follows the path of tribal evolution in the musical education of children. Therefore he founds musical education on rhythm and builds it on the music of primitive tribes. He urges children to use the language in expressing rhythm, since this way a proper tempo can be reached. In his opinion expressing rhythm by clapping hands, stamping feet or using other tools would result in a slower tempo. His method holds development of creativity important therefore it offers room for free improvisation and other natural expressions by the means of music. Everything is expressed by movements. Concepts of the theory of music are practiced by games: rhythm domino, rhythm lottery, puzzles, disks, pictures, cards.

Émile Jaques-Dalcroze¹² aims to transform the human body into a musical instrument. The main principle of his method is that pupils need to be provided unlimited opportunities for living the tune, the rhythm and the movements. In his method I would emphasize rhythmic movement, which is a suitable means to have pupils sense and understand musical processes. In his method rhythm is expressed by stepping and the musical features and form by movements. This activity needs constant concentration, since pupils need to react instantly to the musical process. Pupils need to observe and understand music, they need to be sensitive to it and be able to express it by movements. Thus the body turns into a tool for musical expression. In his method first they deal with a primal instinct about the music and only then will intellectual analysis follow. In his opinion developing a physical reaction to the music is the most direct method in making pupils understand the music. The technique of eurhythmics means transposing musical perception to movements. Pupils express even slighter musical changes by muscle movements. They react to the change of the tune, the rhythm, the harmony, the dynamics, the timbre and

⁹ Szőnvi, Erzsébet, Zenei nevelési irányzatok a XX. században (Musical Education Trends in the

^{20&}lt;sup>th</sup> Century), Tankönyvkiadó, Budapest, 1988, 3. ¹⁰ For this presentation I used the following reference: Mrs. Jenő Kis, Éva Kenesei, Alternatív lehetőségek a zenepedagógiában (Alternatives in Musical Education), Tárogató Kiadó, Budapest, 1994.

¹¹ Maurice Martenot (1898 – 1980) was a French cellist, a radio telegrapher, and an inventor. Born in Paris, he is best known for his invention of the Ondes Martenot, an instrument he first realized in 1928 and spent decades improving. He unveiled a microtonal model in 1938. Martenot himself performed as an ondist. The 1937 World's Fair in Paris awarded him "Le Grand Prix de l'Exposition Mondiale". ¹² Dalcroze, Émile Jaques (1865 – 1950) was a Swiss composer, musician and music educator.

Dalcroze began his career as a pedagogue at the Geneva Conservatory in 1892, where he taught harmony and solfège. Among his compositions are a Nocturne for violin and orchestra, Violin Concerto in c and Poème for violin and orchestra.

in fact to every kind of change in the music. The primary aim of this method is to develop the ability to express oneself.

Edgar Willems¹³ founded his musical education on free singing and free rhythm. He develops a sensitive ear for music by various exercises: imitation of sounds, making the difference between noises and music, group improvisation, free improvisation. In the course of these exercises he uses various instruments and materials. His method is very similar to learning the mother tongue. First children just listen to music, familiarize themselves with the source of the sounds, utter various sounds, learn the name of the notes, express rhythm by imitation, sing songs and only later will the teacher identify their experiences by assigning concepts and theoretical issues to them. When teaching to read and write scores Willems starts with the note C, then he continues with the major scale and relatively with the notes in the tonic chord.

Justine Bayard Ward¹⁴ founded his method on clerical music. His point of departure is the Gregorian song. In teaching rhythm he applies bodily perception instead of explaining concepts. He uses rhythmic games; he expresses tension-relaxation and the two poles of arsis and thesis by movements of the arms. He has the pupils improvise rhythm and tune for poems. In reading the score he uses figuring. He has pupils practice reading staves on staves of 1-2-3 lines first, then on 4-lined staves, the same as those used for writing Gregorian music. He starts using 5-lined staves only after his pupils can fluently read the neume. During each session he has his pupils do phonation, singing, reading and writing score, exercises to develop their ear for music and their sense for rhythm, creative activities. **Shinichi Suzuki**¹⁵ expressly concentrates on instrumental expression.

Shinichi Suzuki¹⁵ expressly concentrates on instrumental expression. In his conception on teaching how to play the violin mothers have an important role. His conception on musical education is that just as the child is surrounded by speech every day and one day he starts speaking himself, musical education should be performed on the same grounds. Children need to be surrounded by quality music, they need to listen to a lot of music and this will help their musical education. First he teaches parents to play music so that they will be able to help their children in learning to play an instrument. In his method pupils learn to play musical pieces first by ear, i.e. they first learn how to play and then find out how to read the score. He emphasizes also developing pupils' ear for music by having them learn the musical pieces, by the principle of gradualism, by interchanging individual and group activities and by training the pupils' memory.

¹³ Edgar Willems (1890-1978) was an artist, a musician autodidacte, and especially, a pedagogue of music.

¹⁴ Justine Ward née Bayard Cutting (Morristown, New Jersey, 1879-Washington, D.C., 1975)

¹⁵ Shinichi Suzuki (1898 –1998), Born in Nagoya, Japan, one of twelve children, spent his childhood working at his father's violin factory, putting up violin sound posts. A family friend encouraged Shinichi to study Western culture, but his father felt that it was beneath Suzuki to be a performer. Without access to professional instruction, he listened to recordings and tried to imitate what he heard.

Maria Montessori¹⁶ uses a method aiming to turn pupils into an educated audience. She prepares pupils by having them listen to a concert every day. But as a first step she educates children to differentiate between noise, sound and silence so that their musical ear should be prepared for the reception of music. She chooses also special instruments: wooden cylinder, bells, reeds, wooden dulcimer, and mini-piano.

Carl Orff¹⁷ proposes a method that aims to further develop playfulness and creativity in children in the course of their musical education. He connects music and movement mainly by emphasizing rhythmic creation and improvisation. A specific feature of his method is using the specific Orff-instruments and active playing of music. He uses a wide range of rhythmic instruments for which the music teacher who is also a composer composed many musical pieces with a pedagogic feature. He starts musical education at the youngest age, not by teaching how to read and write music, but by offering the experience of music: singing, instrumental games, improvisation. He wants to set the mood for musical education. He always connects music to speech and dance. According to Wismeyer: "...Orff is a fan of the theater, he means to unite sight with sound and speech with movement. In a musical education session based on his method the teacher needs to demonstrate dramatic speech and music."¹⁸

The Ulwila Method

Music teacher and special needs education teacher Heinrich Ulrich worked out in the 1970ies a special needs education concept¹⁹ aiming to help mentally disabled children catch up, for the pupils of Tom Mutters School in Frankenthal. The concept develops the entire personality by musical education. It aims to bring about cognitive, psychomotor, emotional and social development. An important element is learning music by instrumental accompaniment, but also singing, listening to music, combination of music, movement and dancing, musical theater, composing, creation of instruments and dexterity are practical areas aimed to be continually developed. It aims that musical education be incorporated into the general knowledge.

¹⁶ Maria Montessori (1870 – 1952) was an Italian physician and educator, a noted humanitarian and devout Catholic best known for the philosophy of education which bears her name. Her educational method is in use today in public as well as private schools throughout the world.

 ¹⁷ Carl Orff (1895 –1982) was a 20th-century German composer, best known for his cantata *Carmina Burana* (1937). In addition to his career as a composer, Orff developed an influential method of music education for children.
 ¹⁸ Wirmover, Ludwig, Dec. Off Schuberte, Userthurde, Lucythan, Carthone, Tennon, Schuberte, Schub

¹⁸ Wismeyer, Ludwig, *Das Orff-Schulwerk*, Handbuch der Schulmusik, Gustav Bosse Verlag, Regensburg, 1964, 321-328.
¹⁹ On the method energy Kövige, Arrest Arriver, Arrest Arrest

¹⁹ On the method see: Kövics Ágnes, Az Ulwila-módszer elveinek alkalmazása értelmileg akadályozott óvodásoknál (Application of the Principles of the Ulwila Method in the Case of Mentally Disabled Kindergarten Children), Fejlesztő Pedagógia, 12. Évf. 2001.2.sz. 18-23; and Psalmus Humanus 2006, 119-129.

And even though specialized literature suggests simple songs, staged melodic drawing, simple rhythm, few notes in one song, simple text to be used in the musical education of the mentally disabled, this school practices exactly the opposite. And in the practice of the school it has been observed that children actually prefer greatly expressive songs with a complicated rhythm because of their expressivity.

Listening to music is included in every activity, but it is also a form of special therapy in order to improve the children's mood. Moving, dancing to music is part of the daily music classes. Pupils compose songs and create instruments²⁰ and play them for themselves and their small community. By creating music theater pupils practice role play and create their own costumes.

In order to make learning to play an instrument easier they use a special system of scores at Tom Mutters School. Initially it was called Ulwila, now they call it HUS Music System. The special system of scores works with simplified signs for establishing pitch and length. Various pitches are represented by various colours, the higher the pitch, the lighter the colour.²¹ Sharp and flat notes are represented by the two colours between which there is a half note.

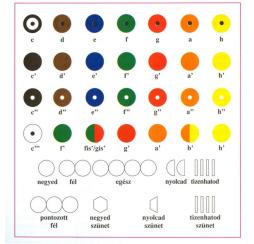


Fig. 1

Every pupil in the school learns how to play an instrument, the most talented having their own orchestra. Their repertory includes musical pieces by Bach, Beethoven, Mozart, Verdi and Bartók, folk music, rock music and gospel music. Due to musical activities mentally and physically disabled children undergo a positive change: they become more open, more joyful, more sociable.

²⁰ One-stringed wooden box, three-stringed guitar, wooden xylophone are also created at school.
²¹ c=black; d=brown; e=blue; f=green; g=red; a=orange; h=yellow in the first octave. In the higher octave each note has the same color but with a while circle in the middle, while in the lower octave we find a black circle in the middle.

In the last few years many-sided uses of the computer become central in musical education both abroad and home. The computer is a suitable aid in teaching the theory of music, it is an opportunity for quick acquisition of information and one can make scores at perfect quality using score writing programs. And all this is available not only to healthy people, but at a certain level also to the physically or mentally disabled. An especially great quality of the computer is that it allows the development of creativity, providing opportunities for anybody to compose his or her own music for himself / herself or for the people around him / her, to try out how the composition may sound played even by an orchestra. Using the computer infinite possibilities appear in instrumentation.

As a conclusion the question needs to be asked: what does then differentiation in musical education mean? It means to accept each pupil with his or her own special situation, features and abilities and to adapt his or her process of development to such a point of departure. Since music class has many parts and its course depends on the creativity of the teacher, the teacher needs to provide for each pupil a type of task in which he or she can feel successful and can continue to develop his or her particular abilities. For individual development the teacher needs to apply from among the presented classical or foreign methods of musical education the one that provides opportunity for the pupil to go on with his musical studies and the development of his abilities. Applying alternative methods of musical education the teacher should bring about the development of less talented pupils in a manner that would not make very talented student with excellent performances lose interest either.

(Translated from Hungarian by Borbély Bartalis Zsuzsa)

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