

## Music Literacy and Hearing Education at Preschool Age

### Abstract

Music education in institutional preschool education. Results of pedagogical experiment targeted at the development of a child's music abilities through perfection of hearing education and music literacy

**Key words:** *music educational employment, music activities, music literacy, hearing education*

In the institutional preschool education in Slovakia attention was paid to children's music, singing and dancing from its very beginnings. It was already Terézia Brunšviková who initiated the emergence of the first Slovak protectory (1829); she knew the strength of the influence of music in everyday life of children. The orientation of protectories was changing in the course of the coming decades, but the position of music educational activities remained relatively stable (undervaluation of music education occurred only sporadically, temporarily and locally). Following the nationalization of schools (1944) as well as transformation of protectories into nursery schools (1948), all preschool institutions started to follow the unified norm, so-called programme of educational work, which has undergone seven innovations until now.

Music education as part of aesthetic education was shaped in programmes according to the level of contemporary knowledge of music pedagogy and music psychology. From relatively isolated music activities with the dominant role of singing until present endeavour to include individual activities into the complex of music education, music education into aesthetic education, aesthetic education into a higher unit and, at the same time, by means of feedback, to integrate all the experienced into music activities.

The latest and currently valid Programme of children's education and formation in nursery schools (1999) presents music education as a complex of singing, music-motional, and instrumental activities as well as listening to music. As part of listening to music it also comprises music therapy, and while introduced into praxis, there timidly appears crystallization of music/dramatic activity. In the Programme, actual activities are worked out as well as defined for three age categories (3–4 years, 4–5 years, 5–6 years).

The present Programme was designed by experienced professionals on the basis of the latest scientific knowledge, progressive research results and year-long practical experience. With prudence they embedded in it a sufficient space for seeking optimal ways of music education depending on concrete conditions of nursery schools, on the needs of individual children and the level of music appreciation. We have used the given space for a pedagogical experiment whose goal was to provide for the qualitative growth of music abilities of children by means of procedures and methods that are non-traditional for our nursery schools. We are describing the characteristics of the pedagogical experiment in the following text.

## **A pedagogical experiment**

### **1. The goal of the work and a hypothesis**

Music-education jobs in nursery schools are oriented towards particular classical music activities that are mutually overlapping and conditioning. The music-theory subject is almost absent in music education, and according to our opinion, the music-hearing potential of children is not sufficiently utilized, either.

Exactly these problems have become the centre of our interest and the area of implementation of the pedagogical experiment.

We hypothetically presumed that:

*Deepening of musical literacy and intensification of hearing education will positively influence the level of children's elementary music abilities.*

In the case of the positive results of the experiment our procedures could offer an inspiration to and themes for more effective work of nursery school teachers.

### **2. Work organisation**

#### **a) Basic characteristics of research groups**

We focused on the respondents of the highest age category; i.e. 5–6 year-old children. With respect to the fact that preschoolers cannot read or write yet and the communication with them is complicated, challenging as well as lengthy, we limited the research sample to 20 individuals:

- Control group – K: made up by 10 children that encounter music culture during traditional classes of music education only.
- Experimental group – Ex: consisted of 10 children that were part of the pedagogical experiment.

### ***b) Research implementation***

Experimental “teaching” took place right in nursery schools in the course of one year. The meetings with children were carried out once or twice a week; they targeted all music activities, however, the emphasis was put upon experimenting in the area of music literacy and hearing education.

The research material was collected on the basis of the results of our own non-standardized test of music abilities, which consisted of three subtests. Individual subtests comprised the following components:

- Music-hearing abilities
- Vocal reproduction abilities
- Perceiving the tectonic structure of music

All the respondents of both the control and experimental group went through a pre-test and they were retested a year later.

## **3. The content of the experimental pedagogic work and its theoretical basis**

We clarify, analyze and substantiate the procedures used in immediate pedagogical work as follows:

### **Music literacy**

With regard to preschool age, there are constant polemics to what extent, if at all, music-teaching disciplines can be realized in music education.

We stand for clear position supporting the basics of music theory, and thus music literacy in its functional sense as well, to be mediated to small children, too. Attainments, of course, are not acquired by memorizing; the orientation in non-complicated but theoretically correctly formulated notions and pieces of knowledge does not make problems to children.

*“It is indeed true that what we learn at our early age we do not fully understand; however, apprehension, which brings joy and sometimes even consolation in the time of need, arrives later.”* (Brierley, J., 1994, p. 33).

Our opinion on the use of simple music theory in nursery school is mostly rejected; the use of classical stave, classical graphic picture of tones, simple abbreviation, etc., is often criticised as age disproportional as well as non-inventory. That

is why we want to argue in detail for our positions and to explain inspirational techniques of erudite pedagogues of music.

### Terminology

Fast developing vocabulary, which is a picture of a growing level of cognitive activities, can be easily enriched by notions from the area of dynamics, tempi, note-writing... (Though we accept the understanding of the meaning of words is similar to syncretic thinking, i.e. broad, loose, and compact.). Since children have *“the tendency to mechanically accept without sufficient thinking discernment”* (Čačka, O., 2000, p. 71), it is inevitable to assign a situational analogy to each introduced concrete notion such as: piano is “as hushed as when you put your puppet to sleep”, forte is “as aloud as if...” and to lead a child to an active and situational experience of a new notion (putting a puppet to sleep...).

### Music writ

A quite frequently discussed theme is the familiarizing with notation. A purposeless “drawing” or “reading” of notes is of course considered archaic today. So it must be considered the isolation of music literacy from music activities. To be sure, following of notation during music activities is, according to scientific arguments, an important stimulating factor of music imagination, thinking, perceiving, experiencing... The reason for it is the discovery that the perception by one sense influences the perception by another one. For example, profound meaning is *“the integration of eye and motion analyser into the process of formation and use of music hearing imagination. It is therefore effective to maximally use notations...picture materials of all kinds and the like.”* (Poledňák, I., 1994, p. 310).

In addition to it, the latest research discovered certain “mixing of the senses” in small children, i.e. *“... the dominance of synthesis in children prior to their understanding of the differences in sensual perceiving and neurons are not yet fully determined. They are still more flexible and variable in activity.”* (Greenfieldová, S. A., 2001, p. 59). The functioning of children’s synthesis has been proved though no comprehensive explanation of it is available. (according to A. S. Greenfieldová, one possibility is that in the “synthetic” brain there are additional links from a given sense organ that merge not only into the prospective cortex of concrete modality but also to other cortex sensory areas).

The combination of optical and acoustic sensations occurs most frequently; however, connections among whatever senses is possible.

We encounter the practical use of the said knowledge mainly when practising songs and rhymes as well as during instrumental activities. In an effort to approach children’s psyche, teachers absolutely eliminate the use of “dry and too theoretical”

traditional graphic signs. They help, visualize and simplify by work-intensive drawing of small suns (in songs about nature), small hearts (in songs about mothers), small fish, frogs, balls...: bigger and smaller suns are symbols of longer and shorter tones, various positions of suns symbolize higher and lower tones... Such a procedure fits to the imagination of a preschooler – with the dominance of immediate sensations and associated fantasies; however, from the point of view of the long-term goal of music education, it is hardly effective.

Each symbol operates in children's reception through its unambiguous meaning and is linked to a concrete situation only, for instance, to a concrete song. A child does not generalize, does not look for casual relations, cannot transform the meaning of a symbol and is not conscious of the analogy between various symbols (its thinking and imagination is concrete – without generalization; they do not perceive the relation between a sun or a heart and fixing of the height or length of a tone).

This is why we definitely prefer the use of classical music signs. A pedagogue must strictly respect the fact that new pieces of knowledge and notions are not obtained by a verbal-logical way but through activity-situational experience.

A similar opinion is shared by numerous authors. To illustrate it we would like to present selected positions of prestigious pedagogues from Italy, the USA, France, and Russia.

*Tatjana Borisovna Judovina-Galperina* is a piano teacher in St. Petersburg and Israel; she is considered as one of the most distinguished personalities in the area of work with preschoolers. Her humanistic professional credo is expressed by the following words:

*“...the main goal is to help any child notwithstanding its inborn abilities to be able to express itself by music, to feel joy of creativity, to inspire its fantasy, interest, and inquisitiveness.”* (Judovina-Galperina, T. B., 2000, p. 6).

On the basis of our 30-year-long pedagogic experience we state:

*“With all respect to theoretical papers and various systems of learning I have been wondering why it is possible to span learning of theories over several years...It is possible and necessary to start teaching elementary theoretical notions from the outset of the first lessons at an early age...”* (Judovina-Galperina, 2000, p. 6)

We emphasise that T. B. Judovina-Galperina is involved with children from the age of three and she is considering experiments with two-year-old children. Her small pupils get all pieces of knowledge through symbiosis of three senses:

- sight – I see graphic signs as well as non-musical symbols
- hearing – I hear what I see (feedback is functional)
- touch – I feel under fingers and imagine on the fingerboard what I see and hear (feedback is functional again)

*Children in the classroom learn absolutely naturally to read notes, e.g. they get the complicated kind of symbolic lettering under control and then they easily merge it to musical clang of the score.* (Judovina-Galperina, T. B., 2000, p. 62).

**Émilie Beaumont and Marie-Renée Pimont.** They summarized their experience in a representative and impressive publication "Pictures of Music". M. R. Pimont is a nursery school teacher in France.

Following the instruction of children on meter, rhythm and rhythmic values of notes – proceeding from semibreve to quaver – they bring forward a stave of five lines and four spaces. Notes on violin clef are connected with the image of a xylophone and the support for the limits of the space for notes on both violin and base clef is the keyboard (with an exception of the note  $c^1$  only notes without vertical lines are initially used).

As it is in the Russian school, so also here the connexion of visual, auditive, and tactile perception is accented.

**Floriana d'Andrea.** She studied psychology and pedagogy at the Scuola di Perfezionamento di F. de Bartolomeis and studied piano playing at N. Paganini Conservatoire. She is now leading the Studio of music propedeutics in Turin.

She emphasises the connection of the level of the child's psychomotoric development with music expression and with musical sensation. "*To lay foundations of basic music literacy*" (D'Andrea, F., 1998, p. 9) is considered to be one of the main tasks at the preschool and young school age.

She leads the music-educational process by means of music animation (vivification) through

- play – "*It is not by chance that for the notions "play" and "play something" so many languages use an identical word, and*
- body – "*Body accepts outside impulses (hearing, sight, touch) and produces sounds, noises, and motion.*"

**James Bastien** is the author of a very popular "textbook" of music theory for preschool children used by teachers in the whole of the USA already for almost two decades. As part of this textbook, there are working pages partially pre-pressed for pupils to write into them. (five-to six-year- old children compulsorily attend pre-school, where they also learn how to write and read.).

The entry into the world of music theory is opened by J. Bastien through rhythmic values of notes – in a reverse order when compared to the French school; it means a value of crotchet, minim and semibreve (quaver is mentioned in the "Prima level" at the end of the textbook).

There follows the musical alphabet (a, b = h, c, d, e, f, g) and a visual orientation on the keyboard: the supportive points are regularly alternated by groups of two and three black keys (an analogy can be found in the Russian school).

Subject information on the existence of the staff is illustrated by a picture with numbered lines and spaces and children immediately inscribe the notes – according to white keys only, while from the beginning only three alternatives are emphasised:

- repeating: same key → same note → prima
- step – ascending and descending: two neighbour keys → move of the note from the line into the space, or from the space onto the line → second
- jump – ascending and descending: three keys → notes on lines only or in spaces only → third

The next subject matter is notes in the base clef (white keys), the interval of fourth and quint (parallel both on violin and base clef), triad and finally shifts towards black keys.

We see the requirements of J. Bastien imposed on children as overexposed: though successions and sequences of gaining new pieces of knowledge are not without logic, the curriculum is difficult because it is abstract and lengthy for a one-year period.

### Hearing education

In the notion of hearing education at the preschool age we include in the first place the development of sensitivity for the perception of tembre, rhythm, tempo, intensity and the note height. Hearing education is a natural and inseparable part of all musical activities; in reality, however, it becomes a synonym of intonation – vocal intonation.

From the above-mentioned areas the most complicated one for children is the cogency of differences in the heights of two consecutively sounding tones, it is analyzing of melody intervals. The vocal reproduction of intervals is also problematic – both ascendant and descendant direction, which often moves in the area of the so-called “intonation caricature” (the expression was introduced by Georg Dyson more than half of a century ago), it is of incorrect analysis and intonation. The reason for it is not in the functioning of the hearing receptor or of the hearing analyser nor the capacity of music abilities, but the characteristics of child psyche:

- Undeveloped operational memory (tone height perception is not sufficiently held in consciousness)
- Low flexibility of schematic operations (lack of discernment of “a tone higher to – a tone lower to”)

- Absence of orthoscopy – of perseverance while perceiving (interval transposition to a more remote location is perceived as a new quality)
- Intellectual abilities (relatively low level of verbal-logical deduction)...

The said and many more characteristics of the psychical level of a preschooler are not the reason for a reduction of hearing education (it is in praxis a natural, though not always realized and purposeful part of all musical activities); it is a reason for looking for a more effective and progressive way of its implementation.

A possible way is:

- Vocal intonation linked to the hearing analysis defined by E. Langsteinová as follows:

*“Vocal intonation (an activity of children) is a transformation of sight sensation of a melody (score, phonogestures) into its sound form through singing.*

*Hearing analysis is an opposite activity; changing of the sound form of a melody into a score or a notion.”* (Langsteinová, E.-Felix, B., 2001, p. 12)

- Hearing analysis adherent to intonation according to Asafjev’s theory:

B. V. Asafjev approached music as a vibrant sound phenomenon and intonation as an expression of contents, thoughts of a concrete work, or of its fragment. Intonation therefore exposes interpreted contents, a semantic core, through an analytical procedure (Asafjev, B. V., 1965).

We have constituted a consecution in nursery school as follows:

Change of sound expression into a notion (according to E. Langsteinová) → filling the notion with contents (cf. B. V. Asafjev) → identification of expressional, gestic quality of a musical formation (inspired by J. Hatrík) → implementation with children (in the intention of T. B. Judovina-Galperina).

By this means we gave instruction on intervals to preschoolers and we tried orientation in fifth chords. At every moment of our mutual work we stressed the experience of sound formation, the experience of music while trying to support it by all possible means giving potential for experience as well as by gestures, mimics, intonation of voice, body position, pictures, toys, story telling...respecting the children’s suggestions (even at the cost of our own ideas of the “contents” of music)...

#### **4. Interpreting the results and verification of the hypotheses**

While qualitatively interpreting the results of the test of music abilities we started with the number of points that the respondents obtained (possible point scale was 0–50 points) documented by the following table:



**Table: Comparison of the results in pre-test and retest in K and Ex.**

Group	Pre-test	Retest	Difference
Experimental	247	336	89
Control	235	274	39
Difference	12	62	50

The comparison of the results led to a statement that the initial position of both researched groups was almost identical – it displayed only a small difference in favour of the experimental group (12 points). In the retest more distinctive differences appeared at the level of music abilities – clearly in favour of the experimental group (62 points).

The findings illustrated by the table were used to verify the effectivity of our music-pedagogic functioning. From the relation for a relative effect of teaching emerged that a relative possible effect of the pedagogical experiment in Ex is bigger than the effect of standard teaching in K; this means that our experiment was more effective in the sense of the development of musical abilities of children ( $E_{re} = 4.45$ ,  $E_{rk} = 1.95$ ,  $E_{re} > E_{rk}$ ).

The described findings allow us to consider the original probabilistic knowledge formulated in the given hypothesis verified.

## **Conclusion**

In the pedagogical experiment we focused our attention on non-standard deepening of music literacy and hearing education in the area of music-educational occupations. The respondents accepted our requirements with no problems and they mastered them. We integrated particular music activities in a playful way and through experiences, which emerged in more effective procedures in the development of music abilities as well as the deepening of contact with music.

The described direction can find its use both in traditional nursery schools and in preschool facilities with advanced music education, where music is not only a bearer of beauty and satisfaction but also of knowledge and experience.

**Bibliography:**

- Asafjev, B. V., (1965): *Hudební forma jako proces*. Praha: Supraphon.
- Bastien, J., (1985): *Theory*. Prima level. San Diego: Kjos West.
- Beaumont E., Pimont M. R., (2002): *Obrázky hudby*. Bratislava: Mladé letá.
- Brierley, J., (1999): *7 prvních let života rozhoduje*. Praha: Portál.
- Čačka, O., (2000): *Psychologie vývoje dětí a dospívajících*. Brno: Doplněk.
- D'Andrea, F., (1998): *Rozvíjíme hudební vnímání a vyjadřování*. Praha: Portál.
- Greenfieldová, S. A., (2001): *Ludský mozog*. Bratislava: Kalligram.
- Hatrik, J., (1997): *Drahokam hudby I*. Nitra: UKF.
- Judovina-Galperina, T. A., (2000): *U klavíru bez slz aneb Jsem pedagog dětí*. Brno: Lynx.
- Langsteinová E., Felix B., (2001): *Práca s novými učebnicami hudobnej výchovy pre 2. ročník ZŠ*. Banská Bystrica: Metodické centrum.
- Micháľková, D., (2002): *Detské piesne a hry so spevom*. Banská Bystrica: PF UMB.
- Poledňák, I., (1984): *ABC stručný slovník hudební psychologie*. Praha: Supraphon.
- Strenáčiková, M., (2004): *Hudba v materskej škole I*. Banská Bystrica: PF UMB.