



# BULLETIN

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**New Teachers at the Liszt Academy:  
Béla Bartók and Zoltán Kodály ca 1907**

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# VOCAL PRODUCTION PROBLEMS IN HUNGARIAN PRIMARY SCHOOLS

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## **Introduction**

The human voice takes center place in the ontogenesis of our musicality. Regardless of social background, race, or musical ability, the voice is the one instrument available to all children. Musical development begins before birth through the foetal experiences of the melody-like contouring of a mother's voice. These earliest experiences form the foundation for subsequent musical (including vocal and linguistic) behaviour. The ongoing interactions between our individual neuropsychobiological development with the sounds and expectations of the maternal socio-cultural environment continue to shape the development of vocal skills, including singing, throughout childhood and into adolescence (Welch, 2006). In accordance with Kodály's concepts, Hungarian music education is based on the singing voice. The human singing voice is a musical instrument accessible to everyone, an important tool for musical experience and knowledge acquisition. Singing is often the only window to a young child's musical life. Singing in one form or another is an essential feature of musical development and behaviour; it is extremely important in the development of musical hearing, which underlies the ability to read and write music and to play an instrument. Singing has a significant impact on a child's intellectual development, facilitates language development through the performance of musical beat and rhythm, helps children learn and articulate the text of a song, and facilitates memory as well as the development of vocabulary (Welch, 2001). Singing, probably uniquely, involves the integration of the musical, speech, visual, motor, and emotional systems of the brain (Welch, 2001).

## **Background**

### *The Kodály Concept and Singing*

The Kodály Concept of Music Education is a way of developing musical skills and teaching musical concepts beginning in very young children. Its methodology utilizes folk songs, Curwen hand signs, illustrations, movable-do, sol-fa, and rhythm symbols and syllables. It was first introduced in Hungary but is now used in many countries, either alone or in combination with other approaches. The voice is the main musical instrument of this way of teaching. In Kodály's own words, singing connected with movement and action is a much more ancient—and, at the same time—more complex phenomenon than is a simple song. Various rhythm and tonal instruments are also used, including simple xylophones and recorders. Although Kodály instruction is sequential, the materials used in teaching musical concepts vary depending on the age of the student. The general sequence may be simplified as: listen - sing - understand - read and write - create (Kodály, 1974).

We should first learn to love music as human sound and as a life-enriching experience. Kodály addressed the efficacy of teaching singing before teaching an instrument. The voice is the most natural instrument and one which every person possesses. Kodály called singing "the essence" of this concept. Singing is a powerful means of musical

expression. What we produce by ourselves is better learned; and there is a stronger feeling of success and accomplishment. Learning through singing should precede instrumental training because it is in the child's best interest to understand the basics of reading music before beginning the difficult task of learning the technique of an instrument. Singing best develops the inner musical ear. If we ourselves sing often, this provides a deep experience of happiness in music. Through our own musical activities, we learn to know the pulsation, rhythm, and shape of melody. Such enjoyment encourages the study of instruments and listening to other pieces of music as well (Kodály, 1974).

In the classroom we can encourage singing for enjoyment and at the same time promote correct intonation and proper singing tone. The instructor's vocal example can significantly improve students' singing and the development of good vocal intonation. Young voices have less volume, less endurance, and naturally higher ranges than adult voices. The adult instructor must modify his or her voice to accommodate this. A capella singing will allow children to hear their own voices and enjoy active music making. Kodály addressed the importance of a capella singing in the music classroom as well as in choral rehearsals and performances. Kodály believed that music should belong to everyone and not just to a musical elite. It is the right of every citizen to be taught the basic elements of music, to be handed the key with which he can enter the locked world of music. To open the ear and heart of millions to serious music is a great thing (Kodály, 1974).

#### *Development of Singing Ability*

The foundations of singing development originate in the auditory and affective experiences of the developing foetus during the final months of gestation, particularly in relation to the earliest perception of melodic variations in the mother's voice. As the mother speaks or sings, the prosodic features of her voice (melody and rhythm) are conveyed to the developing foetus by the sound waves that transfer through her body tissue and that also are reflected from surfaces in her immediate environment. At the same time, the mother's affective state as she speaks or sings is encoded hormonally in her bloodstream through neuroendocrine activity. This emotional state is believed to be experienced by the foetus relatively concomitantly with the sound of the mother's voice because of an interfacing of the foetal and maternal bloodstreams (Welch, 2005a). The outcome is an interweaving of acoustic (prosodic/melodic) and emotional experiences pre-birth that are likely to underpin the developing infant's subsequent interactions post-birth with the sounds of the maternal culture. For example, our ability to determine particularly strong emotions in vocal behaviours in speech and singing (Johnstone & Scherer, 2000; Sundberg, 2000; Nawrot, 2003) is likely to originate in these earliest dual-channel (acoustic-affect) experiences and, arguably, to create a certain bias towards the association of particular vocal timbres with positive and negative feelings (termed "emotional capital" - Welch, 2005a). Six month olds, for example, exhibit endocrine (cortisol) changes after listening to their mothers singing (Trehub, 2001), becoming calmed when upset and more alert when sleepy.

The common roots of singing and speaking are the nonverbal vocalizations of the infant, which are an immediate expression of his-her basic feelings. Parents intuitively tune in to the child's noises to establish communication with the infant. These child-directed vocalizations are called "motherese" and can be seen as a prelinguistic alphabet (Papousek, 1996). These vocalized communications represent at the same time prelinguistic and premusical means of expressions.

The earliest vocal behaviour is crying. It contains all of the ingredients of subsequent vocalisation, including singing, with variations in intensity and pitch, as well as rhyth-

mic patterning and phrasing (Vihman, 1996). Usually by the age of two months, cooing and vowel-like sounds are already in evidence and being shaped by the maternal culture (Ruzza et al, 2003). Aspects of “musical babbling” that contain definite musical features, such as pitch and rhythmic patterns, are also generally apparent from two months onwards (Tafari & Villa, 2002). Their incidence and quality appear to be related positively to the amount of time devoted to daily singing behaviours by the mother; the greater the amount of maternal singing, the increased likelihood of earlier musical babbling. By the age of three to four months, the infant is able to imitate his mother’s exaggerated prosodic contours that characterise infant-mother interaction (Masataka, 1992). Vocal play emerges around the ages of four to six months (Papousek, 1996). By the age of one year, infants are sufficiently cued into the language of the maternal culture for elements to be reflected in their own vocalisations.

A number of authors agree on the fact that most of these melodic contours consist of descending glissando figures after the first 3 or 4 months of life (Fox, 1990). Papousek (1994) describes four different types of melodic contours of vocalization in early childhood (descending, ascending-descending, ascending and complex, and repeated ascending and descending), the frequency of which depends on the age of the infant and the situational context. Descending contours prevail in the first months of life, but later the melodic contours become more varied and the proportion of other contours increases.

The first year of life is characterised by a shaping of the infant’s vocal production through interaction with the acoustic characteristics of maternal culture. Parents, for example, typically employ rich musical properties when interacting with infants: they speak and sing at higher pitch levels, use a wider pitch range, longer pauses, often at a slower rate, and use smooth, simple, but highly modulated intonation contours (Thurman & Welch, 2000; Welch, 2005b; Welch, 2006). In general, the first year of life is characterised by increasingly diverse vocal activity. The first vocalisations of infancy, with their communication of affective state (discomfort and distress, then also comfort and distress), are expanded to include quasimelodic features (2-4 months), developing vocal control (4-7 months), with vocal pitch behaviours that are directly linked to the prosodic features of the mother tongue. By the end of the first year of life, it becomes possible to separate singing and speaking in the preverbal vocalizations of most children. Children themselves experiment with the voice and seem to try out its range and possibilities in “vocal play” (Stadler Elmer, 2002).

It is possible to understand vocal play in Piagetian terminology as a kind of sensorimotor play. This kind of behavior typically appears between the 12th and the 18th month of life. The two fundamental cognitive processes that underlie vocal play and imitation are assimilation and accommodation (Stadler Elmer, 2002). Accommodation takes place when children are trying to adapt their imagination and vocal expression to a given model such as the phrase of a song. Assimilation occurs when children receive new information (a new melody) and integrate it into an already-existing schema.

Another kind of singing was characterized by Dowling (1999) as an articulation of syllables with vowels that are slightly prolonged and appear on stable pitches. The author also observed a sequential organization of the song, referring to more or less stabilized tonal patterns. According to Dowling, the first actual singing can be observed between the 6th and the 18th month of life. At first, these glissando-like improvisations on single syllables occupy only a narrow pitch range. Later they turn into recognizable songs, often with a sequential organization of the sounds. Thus a typical song of an 18-month-old-child consists of an frequently-repeated phrase with a steady melodic contour at a continuously changing level of pitch. The song is quite often interrupted by

breathing; however, its rhythmic scheme usually remains within the phrase and sometimes even stretches over several phrases. These songs are often derived from the rhythm of spoken language.

In their second year of life, children are able to sing single short phrases of a song, frequently turning them into spontaneous improvisations and repeating them quite often (Gembris, 2006). Microtonal figures in spontaneous singing slowly make way for more accurate intervals, resulting in an overall impression that is clearly related to the diatonic system (Moog, 1976). Between the ages of 3 and 4, children combine different songs and song fragments into something like a medley. They can repeat songs they hear and increase phrase contour of the presented song by trial and error. Other researchers observed that children could reproduce all of the lyrics, the main rhythms, and also the formal segments of a song starting at the age of 4 (Shuter-Dyson & Gabriel, 1981).

Singing development in preschool is characterised by an increasing interaction with the sounds of the previously-experienced maternal culture. This interaction is reflected in a mosaic of different singing behaviours that are evidenced between the ages of one and five years. They relate to the young child's inquisitive, playful, creative and spontaneous nature as they engage with and make sense of their "local" musical world. The variety of vocalisations includes: two-year-olds' repetition of brief phrases with identifiable rhythmic and melodic contour patterns (Dowling, 1999), three-year-olds' vocal interplay between spontaneous improvisation and selected elements from the dominant song culture, which are termed "potpourri" songs (Moog, 1976), and "outline songs" (Hargreaves, 1996) in which the nature of the figurative shape of the sung melodic contour (its "schematic" contour) is thought to reflect the current level of the young child's understanding of tonal relationships (Davidson, 1994).

According to Stadler (2000), the different concurrent theoretical approaches to the development of singing can be categorized into three groups. The first group comprises the speech-dominated theories of sequence. The principal argument here is that songs are learned in a certain order, namely, lyrics, rhythm, melody contour/phrases, precise intervals (Hargreaves, 1986; Moog, 1976; Welch, White, 1994). A second group consists of explanations that implicate the order of intervals. Here intervals or successions of notes appear developmentally in a specific and unreversible succession, namely, first the fifth, followed by the third and fourth and then the sixth. This theory assumes innate structures that are supposedly based on the acoustical properties of the harmonic series (Metzler, 1962). The third group could be labeled contour theories. Proponents of this approach advance the notion that the learning process begins with the melodic contour and that pitch and tonality follow. Learning to sing is thus assumed to proceed from global to more local features. According to Davidson's (1994) theory of contour schemata, the development of a contour schema starts with a falling third into which the other intervals are placed. The contour schema will then expand with the child's age: at first to a fourth and up to a sixth, which is mastered by the age of around 6 or 7. One author suggests the following course of development (Stadler Elmer, 2002):

1. Early beginnings; vocalizations as the expression of an infant's basic feelings.
2. Shifted imitations; development of rituals and extended vocal play.
3. Imitation without understanding of rules and inventing of arbitrary rules.
4. Generalization of examples; ability to sing larger units
5. Implicit integration of conventional rules into actions; increasing control of one's own singing.
6. Beginning reflecting on one's own actions, means, symbols and terms; use of notation for the production and reproduction of music.

Children's singing voices are unique in their own way, differing from adult singing voices in terms of vocal timbre, range and expression. Young voices have less volume, less endurance, and naturally higher ranges than adult voices. Prior to puberty, boys and girls have vocal mechanisms that are similar in size and structure. This results in young boys having a similar vocal range as young girls, and sometimes even sing higher than girls.

Children will have acquired the singing range of an octave with all its steps once they are 6 or 7 years old (Davidson, 1994; Minkenberg, 1991). Although they still might miss certain pitches, this does not mean they are unable to recognize the pitches. The vocal reasons for children's singing problems may be:

- respiratory diseases (acute or chronic respiratory diseases, allergies, asthma, pseudo-croup, persistent coughing);
- the absence of singing practice, which results in no interaction between hearing (auditory) and vocal organs (Fischer, 1993; Nietzsche, 1969/1970);
- imitation of bad singing exemplars (eg imitating the voice of some pop singers who are singing with pressure, vocal pressing or a nasal, hoarse voice)
- "high breathing" with its consequences of breathing too loudly; taking too little of a breath, or a separate breath for a very short motive; high larynx;
- singing in too low of a register;
- starting with too aggressive phonation;
- a rough, hoarse and pressed voice (Mohr, 2013).

The harmonious relationship between hearing, brain function, and the development of the vocal organs plays a central role in voice production. If proper coordination is not established between these three areas, there are errors and disturbances in voice production (Mohr, 2013).

The development of the ability to sing comes to an end around the age of 8 years. Generally, by this time children are able to sing a song correctly. This ability remains at this level unless music instruction and practice follow. As always, however, a broad range of inter-individual differences are observable. The singing abilities of untrained adults are not much different from those of 8 to 10-years-old children (Davidson, 1994; Minkenberg, 1991; Stadler Elmer, 2002).

Until now, no research has been carried out to study: 1) which kinds of children's voice production problems exist, how to group them, what their characteristics are; and 2) what sorts of developmental activities can effectively improve the various types of children's singing voice production problems

### **Aims**

The purpose of this paper is to present the different problems of children's vocal production and to demonstrate how we may correct them while developing the quality of children's singing in primary school.

### **Participants**

100 primary school children participated in the observation phase of this study. In Hungary, children attend primary school from 6 through 14 years of age, therefore primary school education lasts for 8 years. Further, 10 primary school children (4<sup>th</sup> and 5<sup>th</sup> graders) participated in the self-study and 260 primary school music teachers filled out the questionnaire. Semi-structured interviews were done with 5 proficient music teachers / choral conductors.

## Methods

The research methods employed were observations, a questionnaire, semi-structured interviews and self-studies. Data were analyzed using qualitative and quantitative analysis protocols.

Aim of the *observations* were:

- to reveal, observe and examine primary school children's vocal production problems

The observation phase lasted for five years. Observation criteria were the children's posture, breathing, articulation, and vocal sound production while singing.

The longitudinal self-study lasted for 2 years. Aims of the *self-study* phase were:

- to work out how we can correct the children singing voice problems at primary school
- testing of developmental exercises (self-study)

The main questions on the online *questionnaire* completed by 260 music teachers included:

- How many children do sing with isolated chest voice, pressed singing voice, too airy singing voice, skinny singing voice and poor-pitch singing voice in your classrooms?
- How can you correct the singing voice production problems?

I conducted *semi-structured interviews* with 5 proficient primary music teachers who were also choral conductors.

The main question of the semi-structured interviews was:

- How do you correct the vocal production problems?

## Observation results

Five key concerns were found across all participants of children's singing voice building problems were observed:

1. singing exclusively in the chest register;
2. "compressed" singing voice;
3. "too airy" or "veiled" singing voice;
4. "skinny" voice;
5. out of tune singing

## Questionnaire results

How many children sing exclusively in the chest register, or with a compressed, too airy, or skinny singing voice, or sing out of tune in music classrooms? In their responses, 20 percent of General Primary School (GPS) music teachers indicated that many children in their classrooms are out-of-tune singers (see Diagram 1), while only 6 percent of Music Primary School (MPS) music teachers responded that many children in their classrooms sing out of tune. However, 25 percent of MPS music teachers answered that no one in their classroom is an out of tune singer (see Diagram 2). 43 percent of GPS music teachers (see Diagram 1) and 40 percent of MPS music teachers indicated that some children in their classroom sing with a "too airy" vocal quality (see Diagram 2). 35 to 39 percent of GPS music teachers responded that some or a few children sing with a "compressed" singing voice (see Diagram 1), and 47 percent of MPS music teachers indicated that some children sing that way (see Diagram 2) Also, 45 percent of GPS music teachers (see Diagram 1) and 35 percent of MPS music teachers listed that only a few children sing exclusively in the chest register (see Diagram 2). 40 percent of GPS and MPS music teachers indicated that only a few children sing with a "skinny" quality (see Diagrams 1 and 2).



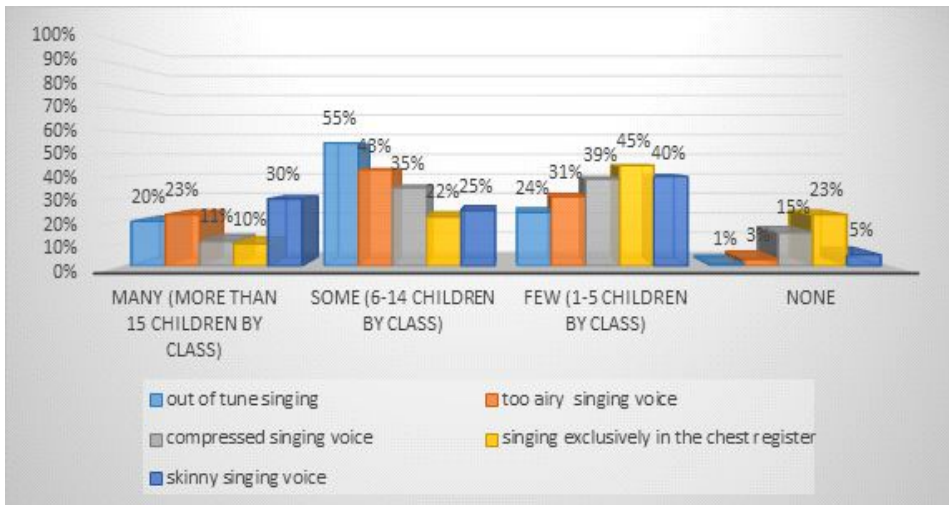


Diagram 1: Singing voice production problems at General Primary Schools

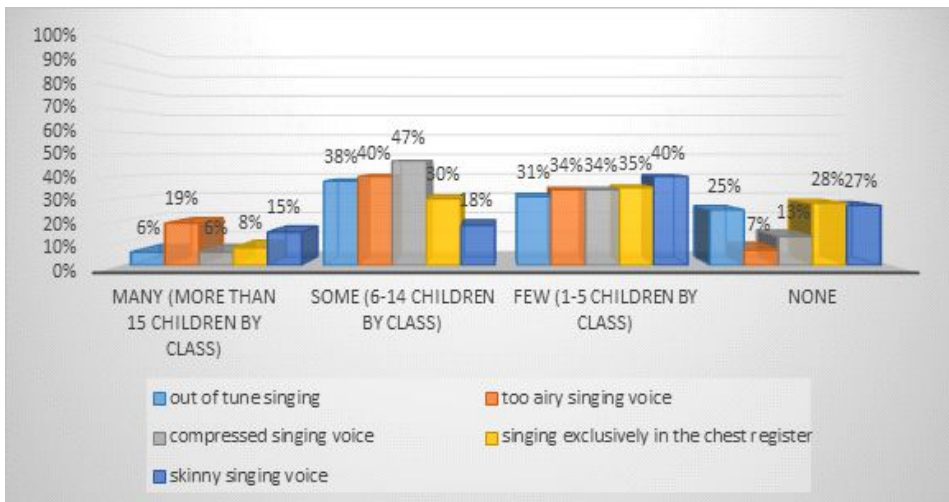


Diagram 2: Singing voice production problems at Music Primary Schools

We observed that many teachers try to only correct false singing without seeking the underlying cause of these problems. Imitating the teacher's singing or that of a child who sings well is the main correction method. Some teachers referred to correct body posture and the importance of breathing exercises. Few teachers consciously use exercises that address singing problems and-or mistakes, for example: glissando exercises, singing with movement, articulation exercises, singing on tiptoe, using mimics, vowel and consonant exercises (vocal production, vowel formation), smiling while singing, *et cetera*.

### Semi-structured interview results

In the semi-structured interviews, teachers responded that they correct children’s singing problems with the following kinds of exercises:

1. Body warm-up exercises: correction of body and-or head posture; singing with movement (going, climbing, chewing movements); continuous body contact; singing with hand movements.
2. Breathing exercises
3. Vocal warm-up exercises: opening and-or shaping the mouth; articulation exercises; singing more softly; singing less *forte*; softly matching pitch; vocal production and vowel formation exercises; imitation exercises
4. Ear-training and solmization exercises
5. Additional exercises: concentration exercises (hearing-thinking-singing); use of imagery to improve singing habits

### Self-study results

#### 1. Singing exclusively in the chest-register

The technical difference between ”head voice” and ”chest voice” has to do with how vocal cords vibrate when singing. We use the terms ”head” and chest” to designate where vibrations are most strongly felt when singing. When singing in ”head voice”, the vibrations are felt behind your nose and your cheeks. When singing in ”chest voice”, vibrations are felt in your throat and chest. When children learn to sing, they normally sing in their chest voice and need help finding their head voice.

The reasons of this vocal problem are isolated chest-voice, full vibration without border vibration.

The following problems seem to exist in posture, breathing, articulation and vocal sound:

SINGING EXCLUSIVELY IN THE CHEST-REGISTER		
	PROBLEMS	CORRECTIONS OF PROBLEMS
posture	more strained body-posture; high elongated head-posture; prtruded chin, mandible, hoisted shoulders	correction of body-posture; correction of head-posture; relaxation of mandible;
breathing	high breathing	midriff activation, deep breathing
articulation, lips activity	too big mouth opening	articulation exercises singing with feeling of gape and feeling of smile
sound	too loud singing, too low singing, poor high tones, voice cracks in the area of register transition, less elasticity, less flexibility, poor dynamics, less expressive capabilities	”mezza voce”, starting from piano, development of singing voice from head-register; glissando exercises, vocal exercises with following vowels: ”i”, ”e”, (”ü”, ”ö”), ”o”, ”u” and the most conductive consonants: ”n”, ”m”, ”ng”, ”s”. softly singing, singing in high register

Table 1: Problems of singing exclusively in the chest-register and correction of problems

## 2."Compressed" singing voice

The reasons of this vocal problem are too much breath pressing and blow-pressing blast the vocal cords. There are following problems in posture, in breathing, in articulation, in singing and, in vocal sound.

"COMPRESSED" SINGING VOICE		
	PROBLEMS	CORRECTIONS OF PROBLEMS
posture	stiff, strained posture; cramped neck, shoulders, hands, elbows and throat; strained and tense ventral-wall; too raised head; high-ranking larynx; hoisted shoulders; protruded chin, mandible	correction of body-posture; correction of head-posture relaxation of mandible; relaxation of face-muscles; bodily relaxation, small head -movements (yes -no, right-left); going; shaking-movements (hand -, and elbow-movements)
breathing	inactive midriff	relaxation of respiration breath is not restricted breath flow, stream
articulation, lips activity	stare facial expression	articulation exercises;
sound	cramped and pressed singing voice; poor head-voices; raspy-voiced; too big volume; poor flexibility; hard tone starting; register-divergence little voice register; intonation problems	sing softly; sing with movements; vocal exercises with following vowels: "u", "o" and the most conductive consonants: "p", "t", "k", "f", "g", "m", "n"; sing with more head-voice; sing songs with facile and softly characters

Table 2: Problems of "compressed" singing voice and correction of problems

## 3."Too airy", or "veiled singing voice"

The reasons of this vocal problem are the vocal cords can't close complete and breathing air escapes audible. There are following problems in posture, in breathing, in articulation, in singing and, in vocal sound:

"TOO AIRY" or "VEILED SINGING VOICE"		
	PROBLEMS	CORRECTIONS OF PROBLEMS
posture	shrunken posture	straighten of body posture; body-posture activation
breathing	poor breathing support; high-breathing	inhale with wondering; staccato exercises; sing with feeling of inhalation; sing with feeling of draw
articulation, lips activity	small lips activity; poor mimic; poor articulation	mouth opening (long, narrow); chewing movements; articulation exercises
sound	too airy; veiled voice; little voice volume	vocal exercises with following vowels: "i", "o", "u" and the most conductive consonants: "b", "d", "g", "r"; affected, dramatically singing; sing with different timbres; sing songs with more cheerful or more verve characters

Table 3: Problems of too "airy" or "veiled" singing voice and correction of problems

#### 4. "Skinny" singing voice

The reasons for this vocal problem derive from the inner space of the mouth and consequent resonance being less innervated. Possible causes are as follows:

"SKINNY" SINGING VOICE		
	PROBLEMS	CORRECTIONS OF PROBLEMS
posture	sloppy body posture unenthusiastic body posture poor physical discipline	body-posture activation, big hand movements, exercises with tennis ball
breathing	high-breathing; poor breathing support too small breath-movements	breathing intensification, midriff activation staccato exercises
articulation, lips activity	poor articulation, small and too wide mouth-opening	mouth opens softly and vertical feeling of width in mouth and in throat, gape, inner smile, chewing movements; articulation exercises
sound	too infantile voice, little voice volume sometimes too airy, little singing voice register without overtones	affected singing and playing vocal exercises with following vowels: "u", "o", "a" and the most conductive consonants: "b", "d", "g", "m", "n", "r"; lilt singing with innervate characters

Table 4: Problems of "skinny" singing voice and correction of problems

#### 5. Out of tune singing

The term "tone deafness," commonly applied to singing off key, suggests that the cause lies in faulty perception and problems lie in production, memory, and/or sensorimotor integration.

Those children are called "out of tune singers" who cannot sing a melody accurately. These children suffer from a lack of functional connections between hearing (auditory), brain processing, and vocal organ activity. In other words, there is a coordination disorder between hearing and singing.

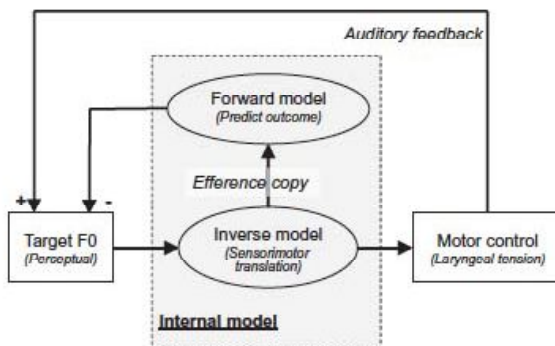


Figure 1: Vocal imitation of pitch (Pfordresher, 2014)

There are three types of out of tune singers:

1. "singing only in speech range"

They can "sing" only in their speech range.

They can not perceive where the melody moves.

They can not perceive either direction of melody or pitch of tones, so they do not know how to sing.

They have no experience of how to produce different-pitch of tones with their voice-forming organs. (vocal organs)

2. "false singing"

Bigger pitch changes are often perceived as minor changes and are thus reproduced. For example: perfect fifth interval is perceived major second

3. "singing too low"

They always sing all too low; they growl.

Some out of tune singers do not know they are singing falsely until someone tells them this.

Coordination of the vocal organ and hearing can be taught to most "poor-pitch singers", but this requires a lot of time, patience, experience and good teaching approaches.

Correction of out of tune singing:

- body contact: the direction of the melody, the pitch differences must be manually displayed
- eye contact: "sing the tone in my eyes!"
- ear training exercises: low, high
- concentration exercises:  
Give a pause for the thinking before reproducing, singing the given tone hearing – thinking – singing
- buzzing exercises: from bottom to top (rocket, elevator, uphill-downhill)
- imitation exercises (imitation of animal sounds)
- "toneball" carrying, throwing, transferring
- find common tone, pitch

A single exercise can be used to address multiple vocal and musical considerations. Exercises may address matters of breath, vocal production, vowel formation, and vocal development. Each exercise used for this particular study is labeled with its fundamental purpose, although many function in several capacities. In two years, all singing problems were remediated. Children's singing development is both varied and multifaceted, and this has considerable implications for teaching and assessing singing as well as other forms of music-making that depend on singing and the quality of singing during the school years.

## Conclusions

The body needs to be balanced for students to project a beautiful singing tone. Breathing exercises teach children to inhale and exhale correctly. Vocal warm-up exercises and vocalizations such as encouraging students to vocalize high and low sounds as well as soft and loud sounds help to develop beautiful singing. A healthy childhood singing voice should be light, smaller than adults' voice, in the nature of the head-register, shiny, sonorous, soaring, floaty, mobile, not veiled nor sophisticated, without pressing, not too loud, soft in the chest register. Well-planned and efficiently executed vocal development activities and exercises are essential for developing good singing habits. Because the vocal cords constitute an extremely sensitive organ, they need special care and training in order to produce healthy singing attributes.

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