

## Developing choral skills at a young age through choral singing

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**Abstract:** *In this study we will present an experiment performed on a group of children who were selected based on musical aptitude tests and were included in an experimental group. In this group we found children with various musical abilities: some have a very good hearing but do not always sing correctly, some did not get good results in testing melodic hearing but have rhythmic problems, others fail to reproduce the rhythm. Thanks to the systematic choral activities carried out over a period of 8 months, most children were able to achieve coordination between hearing and voice and to develop musically. If the children benefit from a specialized guidance, they can obtain expressive and technical performances through highly artistic interpretations. If the conductor manages to win the children's trust, to form their artistic discipline and to breathe into them a love for music, the satisfactions will be as grand as those received from a choir of professionals.*

Key-words: *musical skills, choral singing, skills, well-being, music education*

### 1. Introduction

Through choral singing, children cultivate and develop musicality, musical skills and abilities (vocal qualities, melodic sense, rhythmic sense, musical memory and imagination, musical intelligence). Previous research has explained that choral singing can provide benefits for practitioners of different ages, both musically (development of musical skills), physically (physical stress reduction, improved breathing and posture, increased blood circulation), psychologically (improved concentration and memory, raised self-esteem) or socially.

It was stated that all people have a potential for musical performances, (Howe, Davidson, Sloboda 1998) and natural abilities are partly controlled by genetic endowment and may appear spontaneously without structured learning or formal training as a result of maturation and informal exercise (Gagné 2010).

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Winner and Martino suggest that a possible basic core ability of musically gifted children is their sensitivity to the structure of music-tonality, key, harmony, and rhythm, and the ability to hear the expressive properties of music (Winner and Martino 2000, 102). This sensitivity allows musically gifted children to remember, play, transpose, improvise or create music.

Musical skills are an organic component of the intellectual structure of each individual, their transformation into musical performances being shaped by culture. In the musical activity it is very important to achieve a proper relationship between skills and attitudes, because without it, achieving high level performance would not be possible. In this sense, the existence of skills is not enough for success in the field of music, if children lack interest and perseverance for their development. In most cases, poor skills can be compensated by a higher degree of development of other traits or by a sustained interest, by a strong inclination for the activity, by perseverance, conscientiousness and other traits of the person, which depend largely by the attitudinal components.

In this study, we will start from the premise that has already been demonstrated by many studies, that all children have musical skills, but their potential of development differs from an individual to another. Through the ongoing experiment it has been proved that musical abilities and aptitudes can be evolved through specialized guidance, and group singing is a leisure interpersonal activity with common goals, favoring empathy and social integration, promotes self-esteem, general confidence and also self-efficacy.

## **2. Literature review**

Referring to the general benefits of choral singing, numerous researches support the idea that this activity may be adopted in order to enhance quality of life and promote mental and physical health. These are psychological benefits such as regulating the level of anxiety (Caetano, Ferreira, Mariotto, Vidal, Neufeld, dos Reis 2017), achieving a state of mindfulness (Lynch, Wilson 2018), obtaining a sense of belonging to a group (Sanal, Gorsev 2014) or about physical benefits such as the development of lung capacity, the remedy of various mental health problems, physical disabilities and intellectual disability (Dingle, Brander, Ballantyne, Baker 2013).

Another aspect that current research considers is the extent to which the involvement of children and young people in amateur or professional choirs has an influence on the acquisition of educational values. Thus, in addition to the benefits on the human physique and psyche, one question arises: does participation in choral singing facilitate the acquisition / assumption of various moral values of

education? We found arguments in favor of these premises in current research, which states that conductors and singers perceive choirs as space where values are present and can be learned (Ferrer, Puiggali, Tesouro 2018).

The author of a research in 1993 looked at the activity of singing in choir in a revolutionary way for that time, as an opportunity for elementary students to develop musicianship, participate in culture, and realize the benefits of self-esteem. The opinions found in this research are contemporary and relevant, because the overall aim of choral singing as music education is to accomplish self-development and satisfaction by teaching musicianship that will assist the individuals after schooling is over. Also, in the research we are discussing about, it is observed that during choral singing the student is constantly challenged to use their musical knowledge and skills in several exercises and songs and perform the corrections and improvements in order to evaluate the results of his or her efforts (Rao 1993). We chose to mention this research to support the idea that the activity of singing in a choir brings the same benefits to present generations, as it has done in the past.

Bailey and Davidson (2005) point out that in most research on performance and singing, the focus is on elite performers. So, the two authors note that the focus of the researchers is the 'how' of creating exceptional performances, and little attention has been given to the 'why' of performance. Joining the previous ideas, we chose the subject of this article in order to observe how in a choral environment, the benefits of singing and performance override elitist concerns. In order to encourage students to find their voices by developing their musicianship and expressing their creativity, other authors propose projects accessible to any level of musical training, including covers, popular music and mash-ups in the choral repertoires addressed. In their research, the two authors observed that this pedagogical approach leads to the *development of aural skills, understanding of harmony and chords, and ability to think creatively* (Kastner, Menon 2019).

Studies on musical aptitudes mention that music education researchers have studied how music aptitude correlates with measures of creativity, motivation, and other nonperformance variables (Henry 2002; Zdzinski 2002; Zelenak 2015). Regarding the benefits of group singing on musical skills, we mention a research conducted in 2002, in which 74 students in the fifth grade were involved in a group singing activity, once a week, for 20 weeks. After this period, the authors of the research applied a musical aptitude test which showed that, regardless of the correct intonation capacity of the subjects and the vocal endowment (aspects that distinguished the students), the positive results of the aptitude test did not present significant differences between students, but all those involved in the research showed evolution. The conclusion reached by the authors is that both aural skills

and singing technique instruction should be further studied in their relatedness to accurate singing (Phillips, Aitchison, Nompula 2020).

### **3. Musical benefits of singing in children**

Skills begin to develop in the first months of life if the child is brought into contact with music, and musical talent can be discovered from the age of 1 or 2, even before learning to speak. For talented children, the ability to easily recognize and reproduce sounds from an early age consists of various representations of musical relationships (Bamberger, 2006).

At the base of the talent are the skills, which through improvement can be taken to a level that makes them able to give birth to original creations. Musical talent exists where musical skills and abilities are harmoniously combined with creative performance and commitment (Haroutounian 2000, 12-21).

Through the musical education activities carried out in the group, the melodic, rhythmic, harmonic-polyphonic musical skills, of interpretation and psychomotor coordination are developed.

Melodic skills consist in perceiving, recognizing and reproducing sounds of different pitches (high, low, medium) in different melodic configurations (ascending, descending, mixed). The formation of rhythmic skills can be correlated very well with school-age children, with the formation of psychomotor coordination skills, as both are based on the perception, recognition and reproduction of the specific rhythm of certain songs or exercises and the association with body percussion elements, performed at first on accentuated times and then performed by diversifying these movements by using the whole body.

Regarding the formation of harmonic-polyphonic skills, at this age one can insist on differentiating sound plans by using various procedures for performing learned songs: in groups, with soloist, alternating, in roles, in chain, with ison or with accompaniment (with musical toys or Orff instruments).

During the rehearsals we must insist on the formation of basic singing skills: addressing a correct body position during singing, correct use of breathing, natural vocal emission of sounds, clear pronunciation of the text (diction). In children's choirs it is recommended not to neglect the problems of diction and to focus on singing with open sounds.

It is mentioned that permanently, in all activities aimed at children's musical development, the development of creativity must also be taken into account. From experience we have noticed that in general, children appreciate the creative attitude of the conductor infinitely more than the imposition of complex

configurations of ideas that often block the communication of artistic emotion, making him conduct rather for himself.

#### 4. Physical benefits of singing

Singing is a good exercise that has an effect on the respiratory system and the cardiovascular system. There are studies that have shown *the effects of singing on lung diseases, especially chronic obstructive pulmonary disease and asthma, as well as other chronic medical conditions, including Parkinson's disease and quadriplegia, due to increased lung vital capacity (LVC) and enhanced respiratory muscles. Furthermore, singing has also demonstrated positive impacts on emotional states and neural network reconfiguration, so that the symptoms of mood disorders, dementia, and aphasia improve after singing intervention* (Kang et al., 2018).

Grape et al. considered that singing can repeatedly train the synergies between the respiratory system and the circulatory system in order to obtain the best fit and to give a better vigor of the breathing cycle.

Temporary increases in the immune response (eg, salivary immunoglobulin A) have also been observed after choral singing in amateurs (Kreutz et al. 2004) or professionals (Beck et al., 2000). Biological responses to stress, such as increased cortisol or heart rate, may be different, depending on professional or amateur status or group membership versus solo singing (Clift et al. 2011; Gick 2011). Even when we sing sitting on a chair we use the respiratory system and improving the airflow in the upper airways can prevent colds or flu.

On the other hand, less research has been done on the healthy population and especially on the well-being that singing in a choir produces in children. Breath leads the life of sound during singing. For children, singing can have a positive impact on the airways, and achieving proper breathing can improve control of the diaphragm and abdominal muscles.

Starting from physiological breathing, children must be taught to apply respiratory techniques that will make it easier for them to achieve performance through singing. Thus, breathing exercises are an essential part of the singing process itself and should lead to free, balanced breathing without shrugging during singing. Breathing is not only a support for vocal technique, but also helps us externalize inner psychic feelings, emotions, feelings.

Explaining the purpose and advantages of the correct inspiration-expiration and practicing its realization, we will convince the children of the need for air dosing. The problems that appear in a children's choir due to the inefficient dosing of the air are: the acceleration of the execution and the non-observance of the tempo, dystonia, which appears mainly in the descending direction by the tendency

to lower the sounds in the interpretation. In children, dystonia can also occur due to excessive pushing of the air column, interpretation mainly in forte and fortissimo, or insecurity in knowing the score. In the absence of an adequate technique, the young singer frequently resorts to the "hard" solution, subjecting the vocal apparatus to too much physical exertion in relation to the result.

When repetitive breathing exercises are considered boring by children, the artistry of the conductor must intervene, thus he will insist on performing the exercises by using onomatopoeias or by using a didactic game to help the child conduct the sound. It is always advisable to explain to children that in order to delight the audience, capture or excite them, they must tend to become professionals and use their voice, body and imagination. But for all this, they first need to breathe. So it all starts with breathing. The character of the works depends on our breath and on our state of mind; without breathing one cannot sing, because one cannot express the tone of emotions and feelings.

The best position for performing breathing exercises and vocalizations is sitting on a chair, because our muscles need to be relaxed in order to be elastic and ready to practice the proposed techniques. Furthermore, the exercises for the execution of the vocal emission must be done respecting the principle that during the artistic creation, the physical and the psychic must not be under anatomical or emotional stress that would lead to tension.

##### **5. Psychological and social benefits of singing** relate to:

Choral singing stimulates cognitive processes - attention, memory, imagination, thinking - by focusing on both the conductor's instructions and the melodic line, lyrics, rhythm, to which is added the interaction with colleagues in the choir, through music. The spiritual value of vocal-choral singing achieves students' attachment to music and contributes to human development, stimulates pleasure, interest in listening to and singing music, to understand it and to participate consciously in its interpretation. However, the atmosphere and the relationships between the choir members are very important. From the testimonies of the former choristers I noticed that many of them especially remembered the feelings, the experiences experienced during the performances or tours or even the happy moments during rehearsals, the emotions that made the fusion and the homogenization of the band and less the songs sung. The conductor is responsible for creating the sound flow that unites them.

The success of singing in a choral group must also be correlated with the feeling of social inclusion, of belonging to a community; *it generates a positive*

*group identity, as well as physical and psychological benefits*, as well as achieving relationships based on empathy. Empathy is the ability to understand the thoughts, feelings and reactions of others, identifying them with your own experiences. It is the most effective method of expressing emotions and states of mind.

From this point of view, the action of the conductor is important, who must be constantly concerned with creating a united and homogeneous team. The problem that arises in the case of a children's choir is due to the fact that after reaching the age of adolescence, the children no longer come to the choir, and the ensemble is periodically renewed.

He must not overlook some stardom attitudes, which some of the children who usually sing as soloists can have. Some of these children only participate in rehearsals before the concerts, considering that it is a waste of time to come to all rehearsals; this indicates that these people value themselves more and do not come to choir classes for the pleasure of singing. This attitude is also difficult for other small choristers to tolerate. In this sense, we support the idea that the performer must not use musical creation as a pretext to show off, but must form, together with colleagues, a united, homogeneous group, whose common objectives are to transmit the artistic image of musical creation through its awareness and interpretation and convey to the audience the joy of singing.

If the children are rigorously selected according to musical criteria and the teacher deals closely with their vocal culture, with organized, thorough, enthusiastic work, there can be obtained expressive and technical performances through interpretations of a high artistic attitude. If the conductor manages to win the children's trust, to form their artistic discipline and to instill in them a love for music, the satisfactions will match those received from a choir of professionals. (Botez 1982, 47)

## **6. Participants**

For the research, an experimental group of 20 people, aged between 6 and 12, was selected from a children's choir. Children who want to be part of the children's choir are selected based on tests for musical skills. The children who were selected and introduced to the experimental group had less developed musical hearing and rhythmic sense, but expressed a desire to sing in a group. In the aptitude tests we applied, these children obtained satisfactory results. Of the 20 children, 80% are girls and 20% are boys. Almost half of the experimental group are students from families with secondary education - high school or technical school, while the rest are students whose parents have graduated from a short or long-term university. In order to

develop their skills, a musical training program was applied, carried out weekly, for a period of 8 months, during which time two stage performances took place.

## 7. Methods and results

The applied aptitude test included 4 tasks, which tested: melodic, rhythmic skills, musical memory and creativity. All the rehearsals were based on the reproduction of some musical / rhythmic fragments, gradually scoring the correctness of their realization.

The initial test score is between 55 and 95 points obtained out of 100, with an average of the group of children of 73.75%. (Figure 1)

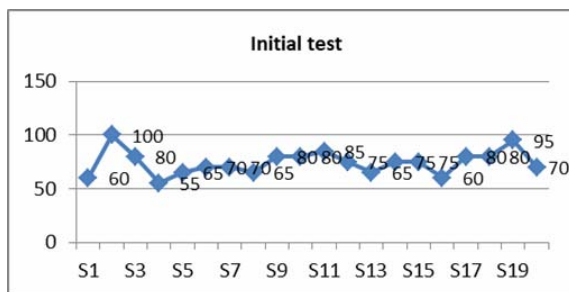


Fig. 1. *Initial Test*

After the initial testing, the children entered a choral training program conducted over 8 months, weekly, for 2 hours each week. The training program included (in each session): breathing exercises, diction exercises, vocalizations, melodic and rhythmic exercises, learning songs appropriate to the children's age and grouped according to the theme pursued. The main goal was to develop melodic, rhythmic skills of creativity and musical memory in children.

In the first 4 months, the repertoire focused more on songs from children's folklore or songs from the international repertoire, with various themes. The selected repertoire of songs was the central point of the children's activity through the specific type of manifestation, having not only a fun utility, but also an educational one. We also emphasized the development of the spirit of cooperation, action, language, artistic and musical sensitivity.



Many of the proposed songs and games have benefited from rhythmic accompaniment made by elements of body percussion and the use of instruments: claves, maracas, tambourines, triangles, shaker, woodblock. The melodic accompaniment was used with the help of a blockflote, a harmonic, or a piano.

For the next 4 months, a repertoire taken from the soundtrack of the cartoons, preferred by children, was approached, the final show being entitled "In the world of stories". We have always watched the transformation of any exercise or song into a game, by adding body percussion elements or musical instruments.

The final testing (Fig.2) demonstrated a substantial improvement in the musical quality of the children, as can be seen in the graph below.

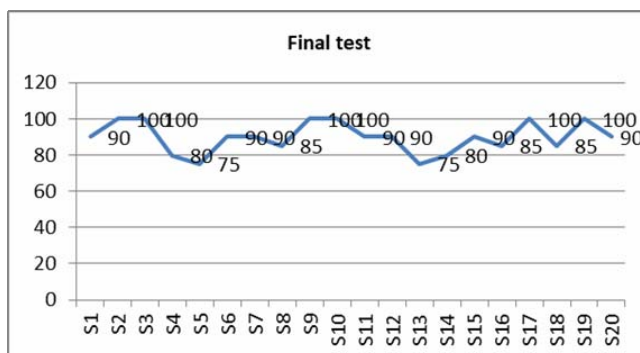


Fig. 2. Final Test

If at the beginning, in the initial evaluation, there was a majority of minimum scores, in the post-experimental stage, the students obtained higher scores, the progress being visible in all students. Regarding the progress made on the student, it can be seen that each has evolved in a positive way, due to the methods and procedures used and the repertoire of songs chosen according to age characteristics but also due to pseudo-instrument and body percussion games. If at the initial test the total percentage achieved reached 73.75% of the maximum score, at the final test the total score achieved reaches 89.75% (Figure 3).

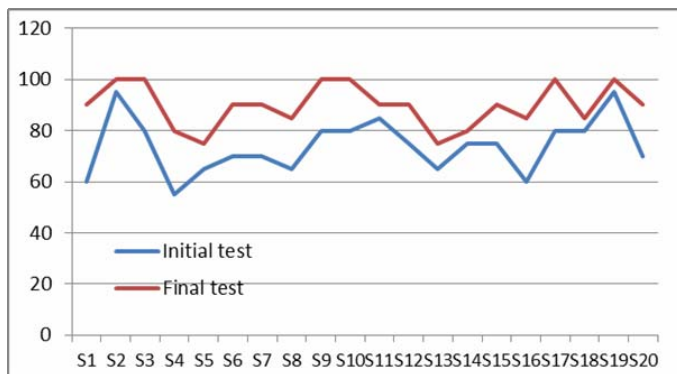


Fig. 3. Comparison between the initial and final test

## 8. Discussions

One of the fundamental problems that any conductor faces is the problem of rhythmic or melodic instability and the performer's ability to vocally sustain an intonational discourse through correct and expressive phrasing. During the weeks of music-choral practice we encountered difficulties, which mainly concerned the following aspects:

- intonation with tonal uncertainty and rhythmic and melodic instability;
- some children are obviously embarrassed and unaccustomed to singing individually when asked;
- some children accelerated the rhythm or reversed rhythmic formulas;
- sometimes, rhythmic rigidity and precipitation in the formulas with sixteenths have been observed;
- difficulty memorizing longer melodic passages, but sometimes also rhyming ones;

Other problems involved negative reactions from some children, reactions due to lack of self-confidence. We tried and kept a positive mental state in the group, we tried to inhibit their negative states, giving them confidence. If they could not play a musical fragment correctly, in the first phase they were asked to perform a rhythmic accompaniment with percussion instruments, which they managed to do correctly and thus, they did not have the feeling of not being able to sing. We sought not to marginalize these slower-growing children, but to integrate them as a whole, by delegating tasks that they could accomplish.

Another constant concern that we had during the experiment was the formation of children's voices. The organic qualities of the voice can be developed or inhibited by using a correct sound emission. The conductor must not force the children's voices over the real and natural possibilities for immediate performance. His mission is to attract children to music made with passion and perseverance. Therefore, the formation of individual and choral voice was a basic concern, because a choir with good, educated voices that are rich in harmonics can colour and beautify the sound. Especially in the children's choir where the sound is often shrill, raw, the conductor must be patient and always correct with care, he must explain and animate the children to obtain a homogeneous sound product.

Although man can sing spontaneously, without any special effort, the formation of choral sonority can take years and requires a well-developed strategy, which aims to solve the following problems: breathing and vocal emission, intonation and tuning, overall diction, sound balance, choir elasticity (Botez 1982, 140).

## 9. Conclusions

In conclusion, if the children are rigorously selected according to musical criteria and the teacher deals closely with their vocal culture, through organized, thorough, enthusiastic work, they can obtain expressive and technical performances through highly artistic interpretations. If the conductor manages to win the children's trust, to form their artistic discipline and to breathe into them a love for music, the satisfactions will be as grand as those received from a choir of professionals.

The conductor must work both with children who have a beautiful timbre, in which case he must take care of its preservation and enrichment, but also with those who have a less beautiful timbre, which must be chasten through study and exercise, and by the optimal use of resonant cavities.

Percussion instruments integrated into musical activities have proven to be a permanent source of motivation for children's active participation, from the discovery of body percussion, to the "primitive" instruments offered by the environment, to Orff instruments and innovative percussion tubes - boomwhackers, which caused outcries of astonishment from the students.

Practical musical activities become more effective when they have a well-defined purpose. The two stage appearances offered the children the opportunity to present an artistic act in front of an audience. This motivated them to make additional efforts to achieve maximum performance.

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