

MUSIC EDUCATION FOR ANYONE. EASY AND EFFECTIVE EAR TRAINING METHODS OF BROADENING A MUSICIAN'S INNER HEARING

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ABSTRACT

Rhythmic education has always been regarded as one of the most important components of musical education and considered crucial in order to develop satisfactory cognitive, audible and sensorial music abilities. The method proposed in the following paragraphs will describe the use of comparative rhythmic and melodic exercises treated more as didactical games rather than simple written or oral activities. Moreover, it lists suitable pedagogical approaches that are necessary in order to train and strengthen the ear training technique. All of these elements are destined for beginners that do not study music as a main subject and for groups of pupils from the primary and elementary school that study music as a main subject.

By insisting on practicing numerous rhythmic patterns and interval jumps, the improvements in writing dictation and singing solfeggios were proven to be significant and various students from different age groups showed signs of major developments. This simple but efficient ear training method, which was based on worksheets, images, music sheets and lots of music auditions, made students understand and correctly master the differences, and later the connections, between sounds and durations.

KEY WORDS

Music Education; Music Cognition; Rhythmic Improvement; Teaching Method; International Approaches; Fun in the classroom; Creative lessons.

INTRODUCTION

Working as a teacher in both formal and non-formal environments, I began to notice a general problem regarding the music theory subject: rhythmic education. While a good amount of students managed to name sounds, sing pitches and even anticipate their direction in a solfeggio, all of them struggled in reproducing rhythmic durations and formulae, or considered beating the time signature accordingly as an impossible task. As a consequence, the idea of implementing a system designed to correct and improve rhythmic gaps began flourishing in my mind.

Even though there are many existing researches and methods that focus precisely on training the rhythmic capacities, this system was customly adapted for the level of music knowledge of each group I work with in order to captivate their attention, develop their inner hearing and involve the metrical sense into the musical thinking all while remaining as close to the base-level information as possible.

The experimentation process commenced at the beginning of the Romanian school year, more specifically in September 2022, and was set to last for the whole year. It includes different forms of activities (focused especially on the rhythmic aspect), meant to produce a change regarding previously held information, or establish new solid and concrete knowledge, or determine faster and more efficient music reading & writing abilities among the pupils. The subjects exposed to this didactic experiment were the following:

No.	Grade and subject	Training form	Age	Music knowledge
1.	1st year of vocal & music studies	Non-formal	8 - 45 years old	Beginner
2.	2nd year of vocal & music studies	Non-formal	16 - 40 years old	Intermediate
3.	4th grade - Music Theory	Formal	9 - 10 years old	Intermediate
4.	5th grade - Music Theory	Formal	10 - 11 years old	Intermediate - Advanced

At the foundation of the whole experiment planning, three main questions were taken into consideration and thoroughly analyzed:

- What are the desired results? (or What are the key objectives?)
 - Determining the level of preparation of each group through an incipient practical examination,
 - Taking into consideration methods and strategies in order to achieve the full potential of each group,
 - Teaching each group suitable ear training exercises and adapting them depending on the level of knowledge of a group,
 - Identifying the highs and lows of the link between theory and practice,
 - Increasing the students' music theory knowledge,
 - Expanding the student's skill sets.
- How will the results be verified? (or How will the results be evaluated?)

- Observing the progress of each student/ group and offering feedback after each activity and assessment.
- Preparing exercises, homework and tests as a form of written or practical evaluation,
- Using didactic games as a form of practical evaluation.
- How will the learning experience be designed? (or How will the lesson be planned?)
- By creating daily, weekly, whole unit or whole year lesson plans and SMART objectives,
- By using different types of lessons: combined/ mixed lessons, lessons of fixation of knowledge and of developing skills and abilities, lessons of systematization,
- By preparing various methods and strategies of teaching.

METHODOLOGY

As for some of the pupils the music theory and rhythmic notions were familiar but not entirely for others, the first stage of the experiment was to obtain as much information as possible about their overall musical knowledge and ear training. Therefore, two versions of dictation were prepared at the beginning of the romanian school year (one for the formal, vocational institution and one for the non-formal institution), that were also considered as an initial test:

- a fragment composed by myself in C Major, with a time signature of 4/4, consisting of 12 bars - for the 5th grade:

- a listening worksheet found on the internet, consisting of several bars of comparative melodies - for the 4th grade and for the non-formal trained musicians:



Ex. 1 - Hull Music Service, <https://www.hullmusicclub.com>

Upon grading and offering feedback on the initial test, the stage of thinking about the suitable didactic strategies required for each group of students commenced. The strategies and methods' list ended up consisting of visual, audible and written exercises, auditions, brainstorming, chains of ideas, imitations, didactic games, working with labeled examples, combining piano practice with ear training, quick ear training sessions (at the beginning of each lesson), working in pairs/ teams, relay race games, improvisation exercises and so on.

Another important aspect to mention is that the students were encouraged to find and apply suitable strategies for their own learning technique as well, in order to keep up with the rigorous training. Hilde Synnøve Blix is one of the researchers who shares this opinion and cited other impactful researchers' studies in her study, *Learning strategies for ear training* 2014, to highlight the idea of active and smart learning: "*The way the students choose among strategies is one of the factors that determine to what degree the students will succeed in their professional development (Kern 2000). [...] Strategic learners that are able to use and choose from multiple strategies, and adjust the strategies according to different tasks, learn faster and better (Kletzien 1991, Strømsø 2001).*"

Having these considered, it was important to establish which were the most important steps that required a further analysis as to how a musicians' ear training and active learning can be improved.

1. *Know where you're starting from* - a discussion, between teacher and students, based on feedback which takes place in the first three to five lessons of the school year and/ or after the initial tests.

2. *Decide where you're going* - a longer period of discussions taking place in the first two months of school. This step requires clarifications regarding the subjects of the lessons that are going to be taught, the student's preferences regarding the music domain and their expectations from the music theory course, but also mentioning the teacher's goals and expectations for each individual group.

3. *Design your route* - a common effort made by the teacher and the students for understanding their gaps and clarifying their uncertainties, while finding the ideal strategies beneficial for correcting or improving their skill set.

4. *Choose your optimal transport* - a step completed with the help of the best strategies, methods, exercises and materials available. It is a step that requires a lot of planning and thinking ahead in regards to any unexpected challenges from the teacher's point of view.

EXPERIMENTAL EXERCISES

1. Ear training with visual support - Comparative listening

An exercise applied to all of the groups involved in the experiment, which immediately demonstrated a lot of promising results.

It is worth mentioning that it was not presented to all of the groups at the same time, as the beginner group had a lot of other basic music theory elements to understand and fix first. The 5th grade was the first one to be subjected to it, then the 4th grade, the 2nd year of (vocal) music studies and lastly the 1st year.

This type of exercise is very simple and it has only one rule: From each two bars, the teacher is supposed to sing or play at the piano only one of them. It is the student's task to listen carefully and choose the right answer between them.

Here are some of the visual examples that the students had as support while listening:

The image displays six staves of musical notation, each containing two measures of music. The staves are arranged vertically. The first staff is in 2/4 time and contains two measures of quarter notes: C4, D4, E4, F4 in the first measure, and G4, A4, B4, C5 in the second. The second staff is in 4/4 time and contains two measures of quarter notes: C4, D4, E4, F4 in the first measure, and G4, A4, B4, C5 in the second. The third staff is in 4/4 time and contains two measures of quarter notes: C4, D4, E4, F4 in the first measure, and G4, A4, B4, C5 in the second. The fourth staff is in 3/4 time and contains two measures of quarter notes: C4, D4, E4 in the first measure, and F4, G4, A4 in the second. The fifth staff is in 3/4 time and contains two measures of quarter notes: C4, D4, E4 in the first measure, and F4, G4, A4 in the second. The sixth staff is in 2/4 time and contains two measures of quarter notes: C4, D4, E4 in the first measure, and F4, G4, A4 in the second.



This exercise is highly efficient for training both melody and rhythm. The 2nd year students of vocal & music studies and the 5th grade of music theory groups were the most rapidly responsive towards this exercise, as their previous music training came to their aid and they managed to find each of the comparative exercises' answer fast and correct. The 1st year of vocal & music studies and the 4th grade struggled in the beginning, finding it difficult to differentiate rhythmic patterns from one another if they looked to similar or melodic (intervallic) jumps if the pitches were drawn too similar in both of the examples. Even so, after practicing this kind of exercises throughout numerous lessons they have also shown signs of major improvement and the number of mistakes was clearly reduced.

2. Ear training in teamwork - Scales, arpeggios and intervals (or even chords) relay races

This was another captivating and very effective type of exercise for all the groups exposed to the experiment. While with some of the students it was easier to work and complete the task faster, others had a hard time competing in this type of game, especially when it came to intervals.

Even so, after numerous lessons that incorporated this type of training - starting from one note (sang by one student) and going around the classroom (from the first student to the second, then to the third and so on) creating a scale, an arpeggio or certain intervals, everybody got used to it and slowly started to internally hear all the pitches ahead of time, not just on the spot.

This exercise helped the beginners understand the place of each pitch and determined them to be more careful at each distance between the pitches. At the beginning of the school year, the 1st year group did not manage to precisely calculate or sing close intervals such as 2nds, 3rds or 4ths, but presently they are aware to differentiate them really fast.

Depending on the group I have worked with, I added different variations of this didactic game. For instance, for the 1st year of vocal & music studies and for the 4th grade music theory group, I insisted on scales, Major and minor 2nds, Major and minor 3rds, Perfect 4ths. Either they were given a specific pitch with the help of the piano (or the voice of the teacher) and had to construct one of the above, or they had to choose a pitch on their own and pass it to the other colleague next to them.

For the 2nd year of vocal & music studies and for the 5th grade music theory group, it was easy to play with rhythmic patterns in this way as well, or even with Major/ minor chords. Everyone almost instinctively created the chords, as the Major/ minor sonorities were well-established in their inner ear, but encountered a bit of difficulties in the rhythmic pattern relay race, as they were either not too precise about the rhythmic durations they were presenting to their colleagues, or they were not guessing it right even though they had some good information at the base of their thinking. Eventually, after more lessons of practicing rhythmic formulae and recalling all the rhythmic durations that were taught, the improvements started to show.

3. Ear training with emojis





A fairly common association of Major and Minor sonorities is made with either smiley or sad faces. I used the following emojis in order to establish what does the word Major, Minor or Perfect means in relation to intervals, scales or chords. By drawing or showing the emojis each time I spoke about those three words (M/ m/ P), the students memorized them faster, clearer and were able to make the difference between them more accurately. I also provided them with a list of helpful tips on how to recognize intervals by their sonority and drew emojis near each one of them.









Ex. 2 - Vecteezy, <https://www.vecteezy.com/free-vector/happy-sad-face>

I also provided them with a list of helpful tips on how to recognize intervals by their sonority and drew emojis near each one of them. For instance:

Table 1. Recognizing intervals

	Major second - happy, steady step		minor second - confused, sad step
	Major third - happy ringtone		minor third - sad ringtone

	Perfect fourth - Romania's National anthem		perfect fifth- Not too happy or too sad
	Major sixth - beginning of a happy song		minor sixth - beginning of a sad song
	Major seventh - scary, confusing jump		minor seventh - an ok jump, not so scary

RESULTS AND DISCUSSIONS

The results gathered after six months of practicing these types of exercises are definitely promising. Students were afraid of high/ low registers, of rhythm or of intervallic jumps, but in the present times they are able to recognize and play with numerous of those notions. They improved their coordination in beating the time signature while singing as well and they became faster and more courageous at recognizing any type of jumps.

After each lesson I offer feedback and listen to the students' feedback of the activities as well. They considered these exercises and methods enjoyable and familiar to them. Most of them shared the opinion that these represent a good form of consolidating the information I have taught them in class or the information that they have already possessed.

One of the obstacles encountered throughout the experiment - that still happens inevitably - is that each group has slower learners compared to the majority of the group, students that are insecure about their rhythmic or hearing abilities. Even so, I tried to treat all the groups as a strong team, not as individual students, so that everyone can learn from each other. Furthermore, the slow learners showed major signs of motivation when they heard other colleagues do the task and managed to focus more on doing their part correctly as well.

Students from different age groups impressed me throughout the experiment. Not only children (ages 9-12) managed to complete the training successfully, but also teenagers (ages 16-18) or adults (ages 35+).

The overall results are satisfying to me, as all the groups are currently able to associate the music theory knowledge with their own practice, complete activities correctly, listen to each other and feel motivated by the others, discuss with me about the numerous information regarding music theory, memorize larger fragments of music, identify and reproduce various music elements and demonstrate coordination between beating the measure and singing in the same time.

CONCLUSION

In agreement with Shank (2003), I strongly confirm that *“listening to music is a prerequisite to all other musical pursuits”* and this particular idea is precisely the foundation of the training detailed throughout the study. Haack (1992) pointed out in a study that *“listening is the fundamental skill”* and *“music exists for hearing and listening”*. To both of these ideas I would emphasize the importance of a rigorous rhythmic training in order to fulfill the whole circle when it comes to listening. Any professional musician should be able to identify different timbres, pitches, melodies, musical fragments, rhythmic durations, rhythmic patterns, chords, scales and arpeggios.

This method is currently still under development and requires a lot of new additions regarding the proposed exercises, as students showed clear signs of evolution thus encountering new challenges related to music theory as the lessons went on. The main idea behind this experiment was that everyone can learn easier and faster how to listen properly, no matter how musically trained they were. It matters considerably that up until this point the method drove students to be motivated, stimulated, aesthetically interested, attentive, and determined to fix everything they have theoretically learnt while practicing listening and dictation skills.

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