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Music as a pedagogical resource in the Teaching-Learning process

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SUMMARY

the use of music as a pedagogical resource in the initial years of elementary school, providing a new playful approach in the classroom. Music, in science teaching, aligned with well-defined objectives, can contribute to the integral development of the student, transforming common sense into scientific knowledge. To this end, it is also necessary to value the culture in which the student is inserted, so that he can build knowledge through relationships with music. Based on the context presented, this text presents excerpts from a research project that aimed to investigate the perceptions of students enrolled in the 2nd, 3rd, 4th and 5th grades, in two schools of the Municipal Education Network, in the city of São Paulo de Olivença - AM, describing the use of music as a pedagogical resource in science teaching in the classroom. The methodology used for the constitution and analysis of the data was the Discursive Textual Analysis (ATD), by Moraes and Galiazzi (2016), with the objective of qualitatively analyzing textual and discursive information. Through the analyses, the relevance of music as a pedagogical resource in the teaching and learning process in Science teaching was confirmed, as well as its importance in student development, as well as motivation to learn, greater and more active engagement of students in the classroom, and the feeling of a more joyful and pleasant environment.

Keywords: Music. Science Teaching. Pedagogical Resource.

SUMMARY

This article is an excerpt from a Master's Dissertation that addresses the use of music as a pedagogical resource in the Early Years of Elementary School, providing a new playful approach in the classroom. Music, in the teaching of Science, aligned with well-defined objectives, can contribute to the integral development of the student, transforming common sense into scientific knowledge. To this end, it is also necessary to value the culture in which the student is inserted, so that he or she can build knowledge through relationships with music. Based on the context presented, this text presents excerpts from a research project that aimed to investigate the perceptions of students enrolled in the 2nd, 3rd, 4th and 5th grades, in two schools of the Municipal Education Network, in the city of São Paulo de Olivença - Am, describing the use of music as a pedagogical resource in the Teaching of Science in the classroom. The methodology used for the constitution and analysis of the data was the Discursive Textual Analysis (DTA), by Moraes and Galiazzi (2016), with the objective of qualitatively analyzing textual and discursive information. Through

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the analyses, the relevance of music as a pedagogical resource in the teaching and learning process in Science education was verified, as well as its importance in the development of the student, as well as the motivation to learn, a greater and more active engagement of the students in the classroom, and the feeling of a more cheerful and pleasant environment.

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INTRODUCTION

Music moves, mobilizes and therefore contributes to the transformation and development of the individual. We understand that music, as a form of pedagogical work, provides the integral education of the individual, contributing to the construction of their human values and their conscious and critical personality, preparing them to act in a world in constant transformation.

Based on this assumption, the question is: How can music contribute as a pedagogical resource in the teaching of Science? Sekeff (2007) states that music has its own particular way of organizing experiences, attending to the different aspects of human development, such as physical, mental, social, emotional and spiritual, emphasizing that it is possible to build a dialogue with the educational process, with a view to improving the quality of teaching.

From this perspective, the interest in studying music as a resource in the classroom arose due to the researcher's experiences of having developed a music project as a teacher at a primary school in the city of São Paulo de Olivença – AM. Being immersed in the school context, it was also possible to have contact with teachers who taught Science in Elementary School I and used music in the classroom.

The creative way they developed their classes, presenting content, and the class's involvement sparked my curiosity to research this topic. However, in some situations that occurred in my children's music classes, the students, very excited, asked me to play the guitar, so they could sing and show me the songs they had learned in science class, with themes related to personal hygiene and the names of animals.

In view of this, the researcher proposed, in one of these schools, activities interdisciplinary between Sciences and Music. The Ivan Balieiro Municipal School, which,

had been developing recreational activities in its curriculum for a long time, and agreed with this researcher's proposal, thus carrying out more targeted work regarding the use of music in Science classes. The planning was carried out bimonthly, together with the teachers and the school's coordination. With this partnership, we noticed, in a short time, an improvement in the students' learning, and how much music contributed to concentration and motivation in the classroom.

From this panorama presented, about music in the classroom, we see that it has multifunctionality, since it can provide human development through different aspects, such as the emotional field, various types of behaviors and feelings, or the cognitive field, in which the transition from common sense notions to scientific knowledge of a certain subject can occur (MOREIRA; SANTOS; COELHO, 2014).

In this same vein, Moura (2015) emphasizes that music is a significant teaching method and, in turn, is a field that must be explored intensively in the renewal of pedagogical approaches. It is not about denying traditional pedagogies, but about opening spaces for new methodologies, strengthening cognitive teaching processes and significant learning processes, through the use of music, enabling the strengthening of diverse cultures and their ethnic origins.

As an artistic form, Saviani (2000) reaffirms that music is an art form with a notable educational potential, as it represents one of the most effective resources for directing an education focused on the integral development of the human being. Each capacity can be developed independently, through appropriate exercise. Some studies point to the need for the teacher's task, based on the socio-constructivist perspective, to correspond to the various potentialities to be developed with the student. As a mediating assistance, the educator is in the mediation of various particular capacities, thinking about different fields, focusing on the development of different faculties, in addition to achieving the concentration of the student's attention on their various subjects (VYGOTSKY; LURIA; LEONTIEV, 1994, p. 108).

Music becomes a pedagogical resource when it is called upon to answer questions appropriate to the objectives proposed in the teaching and learning process. One of these central objectives is to promote

development of programmatic content based on the process of transforming spontaneous concepts into scientific concepts. To this end, teachers must recognize themselves as mediating subjects of culture within the educational process, but also take into account the importance of the arts in the development and formation of children as individuals who produce and reproduce culture

Music can be a facilitating instrument in the teaching and learning process, and its use in the classroom can be made viable and encouraged (SEKEFF, 2007). It is a playful activity in which the student can establish a dialogue with the Science content, elevating it to the category of cultural activity. However, Tourinho (1996, p. 107) warns that "music does not replace the rest of education; its function is to reach the human being in its entirety".

1. The contributions of music in the teaching and learning process

As a language of communication, music has a profound relationship with humanity, whether through emotional involvement or its contagious nature. When we come into contact with music, our organism as a whole – body and mind – can undergo some changes, such as accelerating or slowing down our heartbeat, pulse, as well as our breathing and blood pressure. According to Rocha and Bogio (2013):

> The ability of music to evoke emotions is one of its most well-recognized characteristics among listeners. Since ancient times, the ability of music to evoke feelings has been discussed. PLATO, in The Republic, discusses the imprinting of moral traits in individuals based on musical experience. For PLATO, certain modes (scales on which Greek music was based) had the ability to imprint different specific moral traits in individuals (ROCHA; BOGGIO, 2013, p. 136).

Music directly affects the formation of a child's personality, influencing the areas of development of the senses, hearing and vision, contributing directly with stimuli in intellectual development, through immediate responses, such as gestures and body movements. Hummes (2010) states:

> Music can contribute to the student's overall development, developing the ability to express oneself through non-verbal language and feelings and emotions, sensitivity, intellect, body and personality [...] music lends itself to fostering a series of

> of areas of the child. These areas include 'sensitivity', 'motor skills', 'reasoning', as well as the 'transmission and recovery of a series of cultural elements' (HUMMES, 2010, p. 22).

If music is present in various everyday contexts, it should also be present in schools, after all, music represents the culture of a people.

In our school routine, we come across songs sung during recess, in classrooms, while teaching certain content, in circle games, in imitations of songs, in choreographies. According to Brito (2003):

> The child is a “playful” being and, by playing, makes music, as this is how he or she relates to the world that he or she discovers every day. By making music, the child, metaphorically, “transforms himself or herself into sounds”, in a permanent exercise: receptive and curious, the child researches sound materials, “discovers instruments”, invents and imitates melodic and rhythmic motifs and listens with pleasure to the music of all peoples (BRITO, 2003, p. 35).

Souza (2004) believes that carrying out musical experiments at school could be a path to understanding the multiplicity of functions of music in the educational environment: “This broader understanding of the social meaning of music could be useful for understanding the different musical practices of the different groups of students at school” (SOUZA, 2004, p. 8).

Music can stimulate children and, through these stimuli, develop their cognitive and emotional abilities and provide social interaction, revealing and sharpening the deepest and most significant emotions.

> The different ways of listening to and 'using' music may be related to the functions of music, and may depend on the listener's personal characteristics (age, musical training), the situation (intention to listen, attention) and the context (physical, social, cultural, educational) (PALHEIROS, 2006, p. 309).

Bastian (2011) confirms, through research, that music contributes to children's learning and social interaction:

> There is no doubt: music has neurophysiological effects; it leaves traces in the head, it influences the collaboration of approximately ten billion nerve cells, whose highly complex composition made up of interactive spatiotemporal adaptation models is the basis for all our mental, cognitive and social activities. Metaphorically speaking: music can unleash a gigantic symphony of forces; we only need to allow it (BASTIAN, 2011, p. 46).

Thus, Bréscia (2003, p. 60) states that "[...] music can improve performance and concentration, in addition to having a positive impact on the learning of mathematics, reading and other language skills in children".

The brain's development is also influenced by environmental conditions. Any and all stimulation that a human being receives from the womb, the environment in which they live, the music they listen to, and everything that is inherited from the external environment contributes to the development of brain functions:

> The practice of music requires and stimulates the construction of a mental image of a composition in the brain, a cerebrophysiological representation, and to play by heart, an excellent memory is necessary. Those who practice music use a plan of structure of the composition that they, in the act of performing the music, constantly construct and disintegrate (BASTIAN, 2011, p. 111).

Howard Gardner, prepared and published, in 1983,*Structures of the Mind*, presenting the theory of multiple intelligences. This theory revolutionized the field of cognitive psychology by going beyond the common notion of intelligence as a general capacity or potential that each human being possesses to a greater or lesser extent and by questioning the assumption that intelligence can be measured by standardized verbal instruments, such as short-answer tests carried out with paper and pencil (GARDNER, 1983; 1995).

Gardner (1983) proposed identifying seven types of intelligence that could be present in each person: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical intelligence, interpersonal and intrapersonal.

The teacher needs to know the cultural reality of each student, because a school centered on the individual would prioritize the assessment of individual capabilities and interests, seeking to adapt individuals not only in specific curricular areas, but also considering particular ways of teaching these subjects (STRAUSS; GARDNER, 2013).

Musical Intelligence is considered a basic dimension of intelligence, not subordinate to any of the others, but interconnected with all. This intelligence enables the individual to communicate fully and with quality in the world. According to Gardner (1994, p. 78), "A study of musical intelligence can help us understand the special flavor of music, while at the same time clarifying its relationship with other forms of human intellect."

For Gardner (1994), man has a biopsychological potential that allows him to develop different intelligences and intellectual skills, revealing a pluralistic view of the mind. This view sees that intelligence is not divided into "knowledge drawers" and isolated skills. It understands that intelligence has a multiple character, from which relationships are established in all its forms of manifestation. However, it is not possible to list exactly all human intelligences, but, according to the author, it is possible to approach this objective, maintaining a level of analysis:

> In my view, a human intellectual competence must present a set of problem-solving skills – enabling the individual to solve genuine problems or difficulties that he encounters and, when appropriate, to create an effective product – and must also present the potential to find or create problems – thereby providing the basis for the acquisition of new knowledge (GARDNER, 1994, p. 46).

Regarding the organization of the school, and especially in relation to the teacher's planning, it is necessary to rethink and responsibly outline the pedagogical objectives in the classroom. For Duarte and Batista (2013),

> When it comes to school, we are in a more in-depth context, because in addition to transmitting accumulated knowledge, this process must take place in an organized manner, so that all actions carried out by the school and its professionals must be thought out, reflected upon, discussed and planned, as all actions must have intentionality and purpose (DUARTE; BATISTA, 2013, p. 293).

The school needs to provide students with an environment that inspires joy and acceptance, and seeks to break the patterns of traditional teaching, as well as motivate its teachers to develop a spirit of empathy and dialogue with professionals from other areas of knowledge. Silveira and Kiouranis (2008) state:

> It is essential to maintain an environment of joy and playfulness in the classroom. Without humor, the educator does not experience the existential encounter with the student and blocks the teaching-learning process itself. Traditional education has placed the virtues of attention, dedication and responsibility as incompatible with joy and relaxation (SILVEIRA; KIOURANIS, 2008, p. 28).

In this way, Freire (2000) idealizes what the spirit of a school should be like and points out the walls that still need to be overcome:

> We dream of a school that, while serious, is never serious. Seriousness does not need to be heavy. The lighter the seriousness, the more effective and convincing it is. We dream of a school that, because it is serious, is dedicated to teaching in a way that is not only competent, but also dedicated to teaching, and that is a school that generates joy. What is serious, even painful, laborious, in the processes of teaching and learning, of knowing, does not transform this "thing to do" into something sad. On the contrary, the joy of teaching and learning must accompany teachers and students in their constant searches. What we need to do is remove the obstacles that make it difficult for joy to take hold of us and not accept that teaching and learning are necessarily boring and sad practices. That is why I said that the urgent repair of schools will already be a way of changing the face of the school a little from the point of view of its soul as well (FREIRE, 2000, p. 37).

FINAL CONSIDERATIONS

Thus, we can see that, although the school and its teaching staff need to have a serious and committed attitude, this does not mean that the school itself should be intimidating. Music must be considered a pedagogical resource not only to teach content, but also to bring students closer to their reality, respecting their individualities and establishing links with the school. On the other hand, each teacher must also reflect and evaluate themselves, as well as their pedagogical practices in the classroom.

Nowadays, it is important to look at an interdisciplinary culture, with an attitude that allows us to visualize a better relationship between man and knowledge, contributing to science and music. The relationship between school content and music, historically, is not something new, since interdisciplinarity permeates the history of humanity, which was marked by the Greek peoples, by philosophers such as Pythagoras, Plato and Aristotle. Science and art also maintain similarities and a close relationship.

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