

# Musical language in institutions of child education: assessment of two proposals for teacher formation

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## Abstract

This article assesses two studies evaluating two proposals of intervention employing the language of music in the formation of teachers for Child Education. The interventions took place in public institutions of child education from distinct cities and methodologies with the objective of developing musical language in children, and simultaneously complementing the initial formation of teachers by means of relevant knowledge. Study 1 was based on the creation and application of psycho-pedagogical material, organized by a formation program plus individual support for each one of the teachers. For Study 2, a program was produced based on the Music Learning Theory by Edwin Gordon, which was applied on teachers at a school supported by researchers from a university. The results pointed at a slight improvement in the performance of teachers from Study 1 in contrast with expressive differences in the behaviors of teachers in Study 2. This work sheds light on the formation processes currently employed in child education.

**Key words:** Teachers; music learning; child education.

## *Lenguaje musical en instituciones infantiles: evaluación de dos propuestas para formación docente*

## Resumen

Se trata de dos estudios visando evaluar dos propuestas de intervención utilizando el lenguaje musical en la formación de profesores de Educación Infantil. Las intervenciones sucedieron en instituciones infantiles públicas, de ciudades y metodologías distintas, sin embargo, con el objetivo de calificar el desarrollo del lenguaje musical de los niños, simultáneamente a la complementación de la formación inicial del profesor con los conocimientos pertinentes. El *Estudio 1* se dio por la creación y aplicación de un material psicopedagógico, organizado en un programa de formación acrecido del acompañamiento individual de las profesoras. Para el *Estudio 2*, se elaboró un programa basado en la Teoría del Aprendizaje Musical de Edwin Gordon, que fue desarrollado con profesoras de una escuela apoyada por investigadores de una institución de enseñanza universitaria. Los resultados indicaron ligera mejora en el rendimiento de las profesoras del *Estudio 1* y, expresivas diferencias en el comportamiento de las profesoras del *Estudio 2*. El estudio lanza luz sobre procesos de formación en servicio en contextos infantiles.

**Palabras clave:** Maestros; educación musical; educación infantil.

## *Linguagem musical em instituições infantis: avaliação de duas propostas para formação docente*

## Resumo

Trata-se de dois estudos visando avaliar duas propostas de intervenção utilizando a linguagem musical na formação de professores de Educação Infantil. As intervenções ocorreram em instituições infantis públicas, de cidades e metodologias distintas, porém com o objetivo de qualificar o desenvolvimento da linguagem musical das crianças, simultaneamente à complementação da formação inicial do professor com os conhecimentos pertinentes. O *Estudo 1* se deu pela criação e aplicação de um material psicopedagógico, organizado num programa de formação, acrescido do acompanhamento individual das professoras. Para o *Estudo 2* elaborou-se um programa baseado na Teoria da Aprendizagem Musical de Edwin Gordon, que foi trabalhado com professoras de uma escola apoiada por pesquisadores de uma instituição de ensino superior. Os resultados indicaram ligeira melhora na *performance* das professoras do *Estudo 1* e expressivas diferenças no comportamento das professoras do *Estudo 2*. O trabalho lança luz sobre processos de formação em serviço em contextos infantis.

**Palavras-chave:** Professores; educação musical; educação infantil.

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# Introduction

Nowadays, the entrance of children at increasingly younger ages into contexts of child education has raised issues concerning the importance of such institutions offering quality services capable of fomenting childhood development in all its aspects. Despite the plurality of interpretations over the definitions of a concept of quality and its multiple dimensions, it might be understood by means of two fundamental components, represented by the teacher's involvement and the child's engagement (Laevers, 1994) and, in a last analysis, by the effective interplay between educator and student or, rather, mediator and mediated (Feuerstein, 1980; Klein, 1996).

In the search for quality, one of the alternatives of the contexts for children has been to offer of a plurality of activities for the sake of development and full assistance of young children. Malaguzzi (1994) explains that a child is equipped with 100 languages for personal expression, and the types of context in which the child is participating will determine which languages will manifest themselves. Among such languages, the highlights are playing, storytelling, music, the sense of touch, dance, games, the numberless ways of moving the body and so on.

Musical language, as one example of the 100 languages referred to by the Italian educator aforementioned, has its own routes integrating different areas of knowledge, and it is fundamental to bring them together in order to establish the foundations of music learning and development. However, the question is: what is musical language and how can we turn it into an instrument for childhood education contexts? Answering that question is no easy task due to the superficiality with which the discipline is handled at institutions of child education and the absence of a musically pedagogical proposal provided with psychological foundations that will allow for an effective course on music learning (Gordon, 2000).

The term musical language is used by a lot of musical educators and pedagogues as one of the expressive languages available for humanity (Tormin, 2014). Gordon links musical learning with the learning of one's mother tongue because children learn music in a way very similar to the way they learn language. According to the author, "the learning of music should be processed the same way as we do language" (Gordon, 2000, p. 4).

Concerning a child's musical learning, Gordon (2000) points at its comprehensiveness in fostering emotional, social, sensorial-motor, cognitive, and psychological aspects, among others. However, concerning children's musical development, it is important to set "musical interaction" apart from "musical learning". Both elements bring development and musical learning to a child but they do not necessarily develop the same musical competences and skills.

Several researchers, such as Gordon (2000, 2011), Sloboda (2008) and Gainza (1977) advocate musical learning for babies since their birth. In Brazil, the highlights are Beyer (2003, 2008) and Ilari (2002, 2005) with important studies about the development of musical cognition in babies.

It is important to clarify that some musical methodologies by major musical pedagogues of the 20<sup>th</sup> century, such as Jaques-Dalcroze, Edgar Willems, Carl Orff, Zoltán Kodály, and so on, believed that it was not possible to learn music before the age of three because three-year-old children haven't yet developed enough linguistic, motor, socio-affective and logical-formal competences (Reigado, Rocha, & Rodrigues, 2011). However, influences especially by Piaget, Vigotski and Bruner on children's cognitive development added great contributions by means of later studies on children's musical development.

Thus, the last decades of the 20th century brought considerable advances in studies over musical learning from areas such as musical cognitive psychology, neuropsychology, psychobiology, and neuro sciences. Researchers such as Flohre Hodges (2006); Flohr (2010); Muszkat (2012) and Schlaug, Norton, Overy and Winner (2005) demonstrated the effects of music on children's brain development based on structural changes as well as brain changes caused by musical stimuli during childhood.

In this sense, musical learning must necessarily start precociously, especially during child education, which is the time of the greatest opportunities for the development of musical cognition by a child (Tormin, 2014). Beyer (2003, 2008) emphasizes the importance of a baby going through musical activities in an organized recurrent way, which makes full development possible in cognitive, psychomotor skills (memory and attention), as well as in emotional skills.

However, the practice of musicalization in children falls way short of what could be carried on in childhood contexts, especially by the lack of musical formation by the educator that works in these educational spaces. Nogueira (2005) and Godoi (2011) remind us that the research and introduction of music into environments of basic education and in childhood contexts is still incipient due to the fact that musical education normally assumes an ornamental connotation, and is considered to be of little substance as it gets a less than scientific treatment in academic environments. This situation reflects the absence or the need for musical formation by teachers in child education from pedagogy university courses, as well as the lack of musical pedagogical planning for musical activities realized in spaces for child education.

Nevertheless, Broock (2007), Reigado et al. (2011) provide evidence of changes that have taken place in the last decades regarding the future of musical learning in early childhood thanks to investigators like Jonh Sloboda, Sandra Trehub, Laurel Trainor, W. Jay Dowling, David Hargreaves and Edwin Gordon. They have promoted new pedagogical resources for the formation of educators by means of musical activities in the realm of musical teaching for babies and pre-school children. In addition to that, Ilari and Broock (2013) argue that early childhood activities for musical development produce very positive side effects at institutions for child education, which can be observed by means of the greater preoccupation of music teachers and educators towards the development of projects that include music in children's education.

Considering the importance of musical language for childhood development, it is worth it to take a look at how the teaching of music has presented itself in the Brazilian educational contexts. The National Curricular Parameters, or “Parâmetros Curriculares Nacionais” – PCN (Brasil, 1998a) mention the important fact that music is always associated to the cultures and traditions of each historical period. On the other hand, the National Curricular Reference for Child Education, or “Referencial Curricular Nacional de Educação Infantil” (Brasil, 1998b), recommends musical early initiation and places plenty of emphasis on the choice of repertoire, which constitutes a teacher’s chance to enlarge a student’s perceptions of the world. It is of vital importance that the music be of good quality, including genres such as Brazilian Popular Music, Brazilian Folkloric songs, nursery rhymes, and regional as well as classical compositions. The general objective of music in child education is to awake sensibility, logical reasoning, and children’s body language. Musical language organizes sounds and silence while allowing a child to perceive differences in sounds, rhythms, pitch, as well as the difference between treble and bass sounds, short and long sounds, or strong and soft tones.

Still in terms of legislation related to music in education, there is Law 11.769 (2008), which considers music teaching in basic education to be mandatory. Thus, it is important to point at the great possibilities for expansion in musical teaching at the different levels of national school education. According to Souza (2010), the aforementioned law does not exclusively belong to curricula in Arts when it alters article 26 of the Code for Educational Guidelines, or “Lei de Diretrizes e Bases da Educação (Brasil, 2008). This alteration was very hard to pass and its approval was considered to be a great advancement by many musical educators due to the possibility of definitive implantation of musical teaching at schools in an inclusive way for children and teenagers. However, the author points at the necessity for the formation of teachers, which requires a lot of improvements including governmental efforts and participation by universities in order to provide new types of formation.

Recently, the new guidelines for the Common Curricula National Basis, or “Base Nacional Comum Curricular” (BNCC/2018) open possibilities for new actions concerning curricular planning and teacher formations by considering the importance of musicalization for experiences concerning “lines, sounds, colors and shapes”, as well as movements within the field of experience concerning “Body, Gestures and Movements” (Brasil, 2018, pp. 45-46). **However, despite legal requirements, there is still a lot to do concerning musical formation for professionals in child education.**

We know how fragile this professional might be in terms of musical formation and the effects of the insertion of music as a superficial tool for recreation. Consequently, problems caused by a lack of musical formation in child education teachers are very relevant due to unawareness of the processes underlying children’s musical learning and development, especially in their methodological and scientific foundations.

Thus, the objective of the present study is to assess two alternatives for teacher formation in child education by means of elaborating two proposals from different methodological-theoretical conceptions. In order to do this assessment, an involvement scale for educators, or “Escala de Empenho do Educador” (Laevers, 1994) was used in two distinct geographical contexts, Uberlândia/MG and São Paulo/SP. This study is justified by the importance of capacitation for professionals currently working in contexts of child education concerning an understanding of the possibilities presented by the use of music education for the development of young children.

## Method

The work described here included two distinct methodological procedures although the tools for gathering data were the same in the studies identified as Study 1 and Study 2.

### Study 1

#### Participants

Study 1 was realized in four institutions of child education that provided services for underprivileged children and are run by non-governmental organizations located in Uberlândia, Minas Gerais. Five teachers without specific formation or knowledge on musical language, and working with kids aged three to five, took part in the research.

#### Instruments

- Educator’s Involvement Scale (Laevers, 1994), which assesses the quality of interaction of an educator with children. For this purpose, it is based on three concepts identified as sensibility, stimulation, and autonomy, listed onto a range of five points, which must be filled in by the researcher; point 5 represents total Involvement whereas point one represents total lack of Involvement (Pascal & Bertram, 2009). In a nutshell, sensibility refers to encouraging attitudes by an adult when in contact with a child; Stimulation refers to the way a professional stimulates dialogue, activities or a child’s thinking; autonomy consists of encouraging the autonomous solution of problems and a child’s process of decision making.
- CDs containing sounds and instrumental as well as vocal compositions, children’s musical instruments and a rhythmic little band.
- Game-like materials manufactured for the capacitation of teachers.

- Twelve capacitation workshops laid out as an extension course of 100 hours for the formation of teachers.
- Video recordings of teacher performances before and after the intervention. The video recordings were transcribed in order to assess and compare the level of Involvement presented by each teacher, according to what has been described in the Involvement Observation Sheet, or Ficha de Observação de Empenho, below (Bertram e Pascal, 2009, p. 148).

dia, or “Comitê de Ética e Pesquisa da Universidade Federal de Uberlândia” and obtained a favorable decision for its realization by means of protocol 129/10. The Proposal involved the following methodological procedures:

- Selecting participating institutions. The next step was a meeting with school directors, and teachers for the selection of participants (teachers) as well as further clarification concerning the proposal and the signing of an Informed Consent Form.
- Application of the Adult Involvement Scale, or “Escala de Empenho do Adulto”.
- Organization and execution of a course on basic musical formation for teachers, with instruction time of 100 hours.

## Procedures

The Project applied for approval by the Ethics and Research Committee at the Federal University of Uberlân-

Observation Sheet for Adult Involvement / Observation Sheet for Adult Support for Children with NEE / Name of Establishment / Name of adult / M/F - Male/ Female / Observer.

Date / Total number of attending kids / Total number of attending adults / Total number of attending kids with NEE / Morning / Afternoon / Points / Description of every period of 2 minutes / Hour / Sensibility / Stimulation / Autonomy.

### FICHA DE OBSERVAÇÃO DO EMPENHAMENTO DO ADULTO FICHA DE OBSERVAÇÃO DO APOIO DO ADULTO A CRIANÇAS COM NEE

NOME DO ESTABELECIMENTO: .....  
 OBSERVADOR .....  
 DATA .....  
 NOME DO ADULTO ..... M / F  
 NO. TOTAL DE CRIANÇAS PRESENTES ..... NO. DE ADULTOS PRESENTES .....  
 NO. DE CRIANÇAS COM NEE PRESENTES .....

(M) MANHÃ / (T) TARDE

PONTOS

Descrição de cada período de 2 minutos		5	4	3	2	1	SD
HORA							
	Sensibilidade						
	Estimulação						
	Autonomia						
HORA							
	Sensibilidade						
	Estimulação						
	Autonomia						
HORA							
	Sensibilidade						
	Estimulação						
	Autonomia						
HORA							
	Sensibilidade						
	Estimulação						
	Autonomia						

**Table 1.** *Characterization of teacher Involvement according to Laevers (1994)*

Levels	Characteristics
5	Total Involvement
4	There is predominance of Involvement but an absence of a few attitudes of Involvement
3	Neutrality as there is neither Involvement nor the lack of it
2	There is a partial lack of Involvement with a few signs of it
1	Total lack of Involvement by adult

**Table 2.** *Involvement by teachers A, B, C, and E before and after the intervention observed in the sensibility, stimulation, and autonomy categories.*

Levels	1		2		3		4		5	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
TA	10	0	0	0	7	3	9	9	34	44
TB	3	0	15	6	9	9	8	20	10	25
TC	4	0	11	10	35	26	9	16	1	8
TD	0	0	11	17	28	16	19	20	2	7
TE	0	0	2	6	20	37	22	14	16	3
<b>TOTAL</b>	<b>17</b>	<b>0</b>	<b>39</b>	<b>39</b>	<b>99</b>	<b>91</b>	<b>67</b>	<b>79</b>	<b>63</b>	<b>87</b>

- After the course, the teachers were provided with support by the team of researchers for about two months, adding up to a total amount of five sessions of 90 minutes each, in order to help with the internalization of the concepts presented during the course and with planning the introduction of musical activities into educational routines.
- Reapplication of the Adult Involvement Scale.

## Study 2

### Participants

Study 2 was realized in a public institution of child education located in São Paulo and academically supported by an already consolidated study group from a public university also in São Paulo. Four teachers took part in the research. They had no specific formation or knowledge on musical language and worked with children whose ages ranged from six months to five years.

### Instruments

The same ones employed in study 1.

### Procedures

- Application of the Educator Involvement Scale or “Escala de Empenho do Educador”.
- Organization and execution of a basic formation course on Music for teachers, with instruction time of 60 hours; the course was based on the phase of preparatory audiation of the Music Learning Theory – MLT by Gordon (2000), with an emphasis on comprehending the musical learning process.
- Reapplication of the Adult Involvement Scale.

## Results

### Study 1

The results were assessed in accordance to the scores that range from levels 1 to 5 and refer to indicators of quality in interaction expressed in the sensibility, stimulation and autonomy behaviors. According to guidelines by Laevers (1994), each level has different characteristics, according to table 1 below:



**Table 3.** Involvement by teachers A, B, C, and D before and after the intervention observed in the sensibility, stimulation and autonomy.

Levels	1		2		3		4		5	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
TA	3	0	4	0	12	7	19	37	14	27
TB	8	0	8	0	11	9	16	32	12	31
TC	6	0	8	0	16	10	19	35	16	38
TD	8	0	7	0	13	11	14	36	13	27
<b>TOTAL</b>	<b>25</b>	<b>0</b>	<b>27</b>	<b>0</b>	<b>52</b>	<b>37</b>	<b>68</b>	<b>140</b>	<b>55</b>	<b>123</b>

In study 1, the data obtained during the application of the teacher Involvement Scale before and after the intervention are expressed in table 2 below

Thus, it has been observed that before the intervention, teachers A, B and C obtained level 1, which represents behavior characteristic of a very low level of Involvement and such behavior was changed by the study intervention. Four teachers presented improvement in performance, which means they reached higher levels of Involvement. The only exception was teacher E, who professed to be very unmotivated concerning her professional activities, and raised objections concerning the rigidity of institutional routine and, especially, the fact that the school calendar is so attached to special holidays.

Concerning the intervention, plenty of special material was manufactured, and the priority was the importance of knowledge on some elements present in musical language such as the properties of sound, as well as ways to introduce such information to children and offer support after the course in order to help researchers plan activities to teach music. Nevertheless, data show little change in teacher behavior. It is probably due to a lack of effective internalization of course content or maybe because teachers did not feel fully supported in order to execute the changes in their everyday practice with children within rather inflexible routines to which they all must submit.

It is important to mention that although the course was organized on a multiplicity of materials, it was not based on any major approach to musical development such as the Music Learning Theory - MLT by Gordon (2000), which is explored in Study 2.

## Study 2

Concerning Involvement by teachers A,B, C, and D assessed in study 2, table 3 shows their performance before the intervention, and data were collected by means of the application of the Educator Involvement Scale by Laevers (1994), which assesses the sensibility, stimulation and autonomy parameters.

Data indicated that before the intervention, teachers' involvement was predominantly on levels 3, 4 and 5. Yet,

there were activities with levels 1 and 2, which pointed at little sensibility, stimulation and autonomy by the teacher.

Concerning routine musical activities, data obtained through observation and analysis of video recordings show that such activities were indeed carried on in the classroom but were approached in an inarticulate way without any sort of sequencing or planning. In this context, music was used as mere background for other activities. Therefore, despite the good results, this type of practice does not seem to present any factors that will lead to musical learning in terms of the development of musical competences and skills, according to the guidelines provided by Gordon in the preparatory audiation phase. Among these factors, the highlights are: musical responses (rhythmic or tonal) by the children by means of movements coordinated with breathing; awareness of musical perceptions and responses, which demonstrates previously internalized musical concepts, as well as non-verbal factors demonstrating that a child is involved and moved, or not, by a musical expression. Such non-verbal factors include gestures, the eyes, body movement, fluidity, breathing, attention and general engagement.

The intervention contemplated the teachers' musical formation with an emphasis on knowledge of the phases of a child's musical development, according to Gordon's MLT, which start even before birth and gradually advance through the stages of preparatory audiation, which are named acculturation, imitation, and assimilation. Based on presuppositions by Gordon (2000), which link musical learning with the learning of one's mother tongue as analogous processes, it was possible to establish a comprehensible starting point for the process of acquiring musical literacy.

The course was structured into two modes, the on-site course and the distance one and both consisted of 60 hours of instruction time. The on-site course was realized by means of weekly sessions in 10 modules of 3h30min each at an institution of higher learning in São Paulo. In the distance course, the musical guidelines were complemented with activities sent weekly by *e-mail* in order to provide support and further tutoring to the mandatory on-site meetings.

After the intervention, the educator scale of involvement (Laevers, 1994) was applied again in order to assess the impact of results after the teacher musical formation

course. Table 3 shows that the teachers reached, in all categories of involvement, results ranging from level 3 to 5, which is in accordance with more positive standards, and in this stage there were no indicators of low level of involvement, represented by levels 1 and 2. Such data indicate changes in teachers' comprehension of the musical learning process and, especially, in their way of keeping the flow of musical activities, while considering the other planned activities at the child education institution at hand.

## Discussion

The two studies reported here presented apparently similar methodology, that is, during the musical activities, before and after the intervention, it was possible to observe similar aspects in the two proposals. For example: the use of musical elements (rhythm, melody), exploring the properties of sound – duration, pitch (bass and treble), intensity (weak and strong), timber (sound differentiation); listening and singing along of folkloric and children's songs; singing and dancing to music, children's games and songs, among others. All these activities use musical elements and are registered in the methodologies for the teaching of music to children, especially by the best known musical pedagogues in the field of musical learning for children such as Dalcroze (methodology with a focus on movement), Zoltán Kodály (emphasis on the use of voice); Willems (emphasis on auditory education), Carl Orff (use of musical instruments, of sounds and voice in movement, rhythms with body movements); Suzuki (emphasis on repetition and memorization) (Reigado, Rocha, & Rodrigues, 2011), among other great musical educators of the 20<sup>th</sup> century, who bring suggestions of musical activities as well as pedagogical musical materials (printed and in media) to be used with the children.

By comparing the two studies, it is possible to observe that study 1 used several of the previously mentioned activities for the formation of teachers during the workshops. No specifically determined method was used in addition to the musical activities within these methodologies. Study 2 didn't use any specific methodology, only the principles of a theory of musical learning (Gordon, 2000) in the preparatory phase, addressed to newly born and pre-school children, psychologically based on the sequence of processes involved in the act of listening during childhood development, supported by neuro-psychological studies.

In study 2, the guidance and formation of teachers were not directed towards the use of ready-to-use activities that can be learned during the course and used with the kids since it is believed that this type of formation does not lead to a practical transformation on the teacher because it only provides information concerning other possibilities for musical activities for the children and that information is soon forgotten. Many courses of continuous training still present this profile but it seems not enough to cause qualitative changes, and need to be reviewed by the entities responsible for this type of educational program.

Thus, musical formation in Study 2 placed emphasis on how to use musical elements and the activities suggested by the various methodologies in a conscientious way, which really helped teachers understand how children learn music and how the sequential process takes place in every phase of development. For example, there are ways to deal with a baby's babble or the musical responses of children by means of conscious and planned musical stimulation by teachers and to recognize in every phase a sequence of learning. However, good results will only happen if professionals understand how to conduct the musical learning process with constancy and continuity (Rodrigues, 2005, 2009).

It is possible that the way to conceive musical learning as a sequential, dynamic, interactive, and media-friendly process by parents and teachers in child education is one of the obstacles to be overcome. The way children learn music is very close to the way they learn their mother tongue (Gordon, 2000, 2011).

In addition to organizing the course for teachers, it is worth it to remember that, according to what has been mentioned before, the institution in Study 2 keeps an effective partnership with a public university from São Paulo, and takes part in a strongly structured group, with national and international researchers. Their objective is to assess and spread new methodologies for quality child education.

Thus, it is important to highlight the fact that in Study 1, although emphasis was placed on adult involvement in activities to be developed with the children, in addition to the insertion of musical content itself, there were positive comments on the course, according to what can be understood by teacher B's testimony: "I certainly have become a more open-minded person when it comes to music in the classroom. I am learning how to tell stories, which is something I didn't like to do before... I have learned to like my profession even more."

However, it was possible to observe that among the teachers in Study 1, the inability to see what could be done with the children every day, combined with an apparent lack of internal resources (knowledge on the theme) and external resources (lack of institutional support), ended up contributing to the rigidity of institutional routine. Therefore, it is important to question how effective this mode based on isolated capacitation, despite being very carefully planned from a didactic and content point of view, is in order to produce change in the everyday routines of a child education institution.

On the other hand, in Study 2, before the end of the musical formation course, there was an important action realized at the institution, which revealed changes in the children's routine and in the way to conceive the importance of musical language for childhood development. A special music room was made exclusively for the work on musicalization and the whole school community contributed. This initiative has brought new possibilities to offer the children a broader scope of musical activities, which enriches and expands their musical experiences.

As a result, when music is presented in the child's own language in a way that shows respect for their ways of seeing the world, or of listening to sounds like, for exam-

ple, when a baby responds with babbling or a child sings along, and the children are given the opportunity to respond spontaneously to musical expressions, they will acquire the musical structural tools in order to create and not only imitate, according to Bruner (1976) and Gordon (2000) about the construction of learning cognitive structures.

In addition, it was possible to observe in Study 2 that the musical activities became better and more numerous after the intervention. Rather than simply exploring sounds or using lullaby songs for nap time, activities were better planned according to their musical function, such as: stimulation of musical responses, the use of the singing voice, non-verbal communication (the eyes, gestures, touch); singing for babies and young children while using songs without words (neutral syllable); rhythmic or chanting sounds; distinct listening of music compositions with contrasting styles, musical fragments with timber variation; periods of sound and silence, resting tone; weekly visitations to the music room in order to realize these activities, and so on. All these activities are present in the guidelines provided by Gordon, whose intended target are parents and teachers in child education, the prime music mediators for children.

Therefore, there were perceptible changes in the planning and realization of musical activities at the institution, which became open to a new set of possibilities for musical learning and development, analyzed by means of Gordon's MLT, especially in its preparatory audiation phase. It is important to point out the fact that this was possible due to the collaboration and participation of not only teachers but also the director and the pedagogical supervisor. Everyone was engaged and contributed to the significant changes.

In terms of the differences observed between the two studies, it is possible to say that they happened primarily by means of the conception of child musical learning and development and not by means of the use of musical elements, activities, or methodologies for teaching music. Thus, the first study is more focused on musical interaction, which is a common practice in institutions of child education, and assumes a recreational character, in which music is merely the background for other activities, such as the ones for special holidays etc. In the second study, there is actual interaction but it emphasizes musical learning and development by means of the musical guidelines and sequences prescribed by the MLT of Gordon (2000).

It is important to highlight the fact that this continuous and collaborative formation process seemed to enable the teachers in Study 2 to be more autonomous in their musical interventions with the children. This is probably due to the fact that they felt supported rather than instead of merely carrying on activities previously defined by the calendar of special holidays, which was commonplace in the context of the teachers in study 1. It is important to remember that, despite the relevance given the addition of music to pedagogical materials during the workshops and support meetings with study 1 teachers, considerable theatricality was noticed in the way activities were conducted with the children after the workshops. The video recordings demonstrate that previously

rehearsed musical content was presented but very often the content was totally disconnected with the children's stage of musical development.

The results of Study 1 corroborate the ideas of Joly (1998), Figueiredo (2005), and others who advocate the use of music, especially for the celebration of special holidays, for learning other disciplines and as a means of maintaining positive routine behavior. Besides, the elements pointed out by Nogueira (2005), which would ignite the process of depreciation of music learning in school contexts, were also observed. For example: traditional underappreciation of artistic expressions in the school environment, the incipient formation and the unpreparedness of teachers, the lack of space and adequate material, and so on.

It is possible to suggest that an initial and continuous musical formation consists of a construction process. Such process requires partnership and collaboration among the engaged institutions in order to ensure better quality in child musical teaching and learning.

## Final Considerations

This study made it possible to present two distinct possibilities for continuous musical formation for teachers working in child education, especially at public institutions. Results demonstrate that the first possibility, from Study 1, concerns formation based on musical interaction as means of inserting musical language into childhood contexts, though without a focus on musical learning. On the other hand, Study 2 is focused on a musical formation that uses aspects of the MLT by Gordon (2000), which brings a sequence of activities organized for each phase of childhood development.

Despite all the work dedicated to designing activities and supporting teachers, it is observed that Study 1 constitutes the most common and spread practice in sporadic music workshops and courses. Study 2 presents a proposal that is still unknown in Brazil, but it is a concrete possibility to effectively contribute to the musical formation of teachers working in child education (Tormin, 2014; Mariano, 2015). However, new studies are necessary in order to validate the adequacy of proposals in these contexts.

One of the obstacles preventing children from having the right to effective music learning is basically the fact that teachers are not prepared. It is expected that this research combined with current legislation and the new guidelines by BNCC/18 for child education will result in more subsidies for new actions of formative nature.

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