

MONOGRAPH**Creativity in current music education: A review from school levels and teacher training****La creatividad en la educación musical actual: revisión desde los niveles escolares y la formación del profesorado**Yolanda Trujillo Galea¹

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Abstract

This study analyzes the participation of creativity in current school music education through a systematic review of the most recent scientific literature. The review, guided by the PRISMA protocol, started from a bibliographic search in the indexed databases WoS, Scopus and ERIC, using the keywords *creativity* and *music education*. The final sample of selected studies was 57, being determined by all articles published in the last ten years and carried out in the field of school music education and/or initial teacher training. For analysis, data on the study population, educational level, type of study, descriptors and most relevant findings were collected in tables. The results showed the interest of the scientific community in music teachers and their limited promotion of creativity. Despite this, innovative musical and sound creation projects have emerged characterized by interdisciplinarity, collaborative creation, the use of digital technologies and openness to new sounds.

Keywords: Creativity; Music Education; Elementary Education; Music Teachers.

Resumen

Este estudio analiza la participación de la creatividad en la educación musical escolar actual a través de la revisión sistemática de la literatura científica más reciente. La revisión, orientada por el protocolo PRISMA, partió de una búsqueda bibliográfica en las bases de datos indexadas WoS, Scopus y ERIC, empleando las palabras clave *creativity* y *music education*. La muestra final de estudios seleccionados fue de 57, quedando determinada por todos los artículos publicados en los últimos diez años y realizados en el campo de la educación musical escolar y/o formación inicial del profesorado. Para su análisis, se recogieron en tablas los datos de población de estudio, el nivel educativo, el tipo de estudio, descriptores y hallazgos más relevantes. Los resultados mostraron el interés de la comunidad científica por el docente de música y su escasa promoción de la creatividad. Pese a ello, han emergido proyectos innovadores de creación musical y sonora caracterizados por la interdisciplinaria, la creación colaborativa, el empleo de tecnologías digitales y la apertura a nuevas sonoridades.

Palabras claves: creatividad; educación musical; educación elemental; profesorado de Música.

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1. Introduction

Numerous studies have shown that creativity should be encouraged in education, even having its place in school curricula around the world as it favours the integral development of the child both cognitively and emotionally (Cremin, & Chappell, 2021). However, schools do not sufficiently promote divergent thinking, despite the fact that, from the field of psychology, it is considered to be related to creativity and its contributions to human development are relevant (Jaquith, 2011; Kim, 2011). One way of doing this is through musical creativity (Mawang, *et al.*, 2020).

Music pedagogy has also pushed for learning through creative activities, such as improvisation, creation or musical and sound recreation, and proof of this are the works of the creative music pedagogy currents of the mid-20th century, with outstanding figures such as Schafer, Paynter or Self (Romero, 2015). The success of the involvement of creativity in music education depends to a large extent on the work of teachers. Recent studies show that the current practices of music teachers do not foster creativity (Tan, *et al.*, 2019) and that this problem is related to current initial teacher education (Randles, & Tan, 2019).

Since the first review of creativity in music education by Richardson (1983), whose studies were mainly based on the assessment of musical creativity from a psychological approach, no review studies have been found that generally collect research on creativity in school music education. Within this field, there are several reviews, such as that of Stambaugh and Dyson (2012) which focuses on the interests and concerns of teachers and future music teachers, that of Larson and Georgii-Hemming (2019), based on the teaching and learning of improvisation, or that of Alves-Oliveira *et al.* (2022) which delves into creative interventions with children in different contexts, but they do not provide a comprehensive understanding of the role of creativity in school music education. Moreover, the last ten years have seen an increase in scientific production on creativity and education in music education (Cremin, & Chappell, 2021).

Faced with this phenomenon of growing interest in the scientific community and educational policies, a series of questions arose that guided this research: What are the theoretical contributions made by the latest empirical studies on creativity in music teaching in school? Is there any correspondence between current music education curricular proposals on creativity and teaching practices? What are the contributions of recent literature on music teachers' competences related to creativity? What advances are there on the knowledge of methodologies, strategies and resources at the service of music teachers to favor creativity? Are there any current studies that corroborate the importance of creative music learning? What are its pedagogical foundations and guidelines? What is the nature of the successful innovative creative projects in which music education has participated in recent years? What is the role of new technologies in current creative practices in music education? What is the scope of creative experiences in music education that have been based on new contemporary musical and sound languages? How has higher education adapted to provide future music teachers with the necessary competences to favor creativity in their professional performance? Furthermore, our main objective is to analyze the involvement of creativity in current school music education through research published in the last ten years, in order to provide guidance to researchers and practitioners using a systematic literature review approach.

2. Method

2.1. Design

This is a systematic review study of the literature published in the last ten years on the presence of creativity in music education at the pre-school, primary and secondary stages and in the initial training of future teachers. This review is guided by the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) protocol (Page, *et al.*, 2021).

2.2. Sample

Fifty-seven articles published in scientific journals were selected. The inclusion criteria were the following ones:

- Studies in school music education where creativity was present in their objectives and/or results .
- Studies completed at pre-primary, primary or secondary education and higher education (initial teacher training).
- Peer-reviewed scientific articles with access to the full paper.
- Articles in Spanish, English and Portuguese, as the main languages of publication in the field.
- Articles published between 2014-2023.

The exclusion criteria were:

- Review articles.
- Higher education other than teacher training, conservatories and music schools.

2.3. Procedure

The search was conducted in June 2023 in the WoS, Scopus and ERIC databases. The syntax used in the first search was: *creativity AND "music education"* (n=1548). This first search was filtered, using the filters provided by the same databases, by year of publication from 2014 to 2023 (n=942), by language of publication (n=918) and by type of document, selecting only scientific articles (n=727). The results were then filtered to select studies conducted at the levels of education marked by the selection criteria (n=115) on the search syntax: *creativity AND "music education" AND ("childhood education" OR "primary school" OR "secondary school" OR "teacher training")*. Then, duplicate studies were removed (n=78), and the resulting records were reviewed by reading the full texts, the sample being adjusted to the selection criteria (n=52). Finally, other articles included within the references of the articles returned by the search were added.

It is worth mentioning that the entire search, screening, eligibility and inclusion process was reviewed by the two authors independently and, once the sample was obtained, all articles were checked for compliance with the selection criteria by reading the full articles, thus avoiding sample and publication bias.

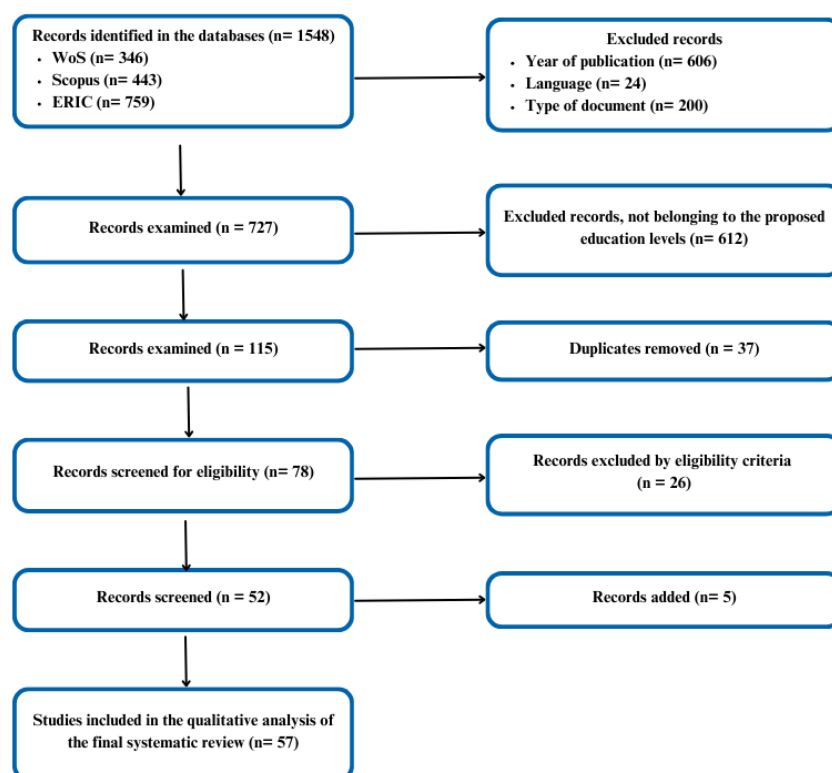


Figure 1. Phases of the oriented filtering process in the PRISMA protocol

To facilitate the synthesis and analysis of data, a table was created in which the following data was collected for all the articles: title, author/s, year of publication, language of publication, country where the study was carried out, type of study, study population (Pre-school, Primary or Secondary School students, acting music teachers or Teacher Training students), educational context in which the study was carried out (Pre-school, Primary, Secondary or Teacher Training), key words, theoretical or methodological contributions and most relevant results.

3. Results

The studies that make up this review (n=57) were published between 2014 and 2023, and were developed in countries around the world, with the majority being European (n=32). The most common language used is English (n=48), followed by Spanish (n=9), with no articles in Portuguese meeting all the criteria. With regard to the type of studies, they are mainly descriptive studies, comprising 81% of the sample, compared to 12% of experimental or quasi-experimental studies and 7% of correlational studies.

The educational contexts studied in this research are the educational stages of Early Childhood, Primary and Secondary Education, and the university teacher training courses. The 84% are focused on a single stage, with Primary and Secondary contexts being the most studied and Early Childhood Education the least studied. In terms of study populations, the majority were students in early childhood, primary or secondary education (54%), followed by music teachers (29%) and teacher training students (17%).

In order to analyze the study sample, the most frequent keywords were selected from all records and synthesized into a list of 15 descriptors. In this list, the keywords "creativity" and "music education" were not included, as they characterize all the articles. Neither were those defining the study population or the educational context in which the studies were carried out selected, as these variables would later be related to this list.

Table 1. Most representative descriptors according to keywords

DESCRIPTORS	N	%
Educational project or intervention	39	67
Educational innovation	38	66
Methodologies	38	66
Experiential learning	34	59
Teaching skills	26	45
Interdisciplinarity	24	41
Integrated arts	20	34
Sound based music	20	34
Collaborative learning	19	33
Technology	13	22
Psycho-pedagogical assessment	13	22
Cognitive skills	13	22
Curriculum	11	19
Socio-emotional well-being	11	19
Education policies	10	17

Subsequently, these descriptors were related to the data on the population and context of the study, resulting in four blocks or categories that define the sample. Although many of these studies could belong to several blocks, they were associated with only one in order to facilitate the synthesis, leaving it in the one with which there was the strongest link according to its objectives and/or most relevant results. These blocks are:

- Creativity, curriculum and policy in music education (n=4).
- Music teachers and creativity: beliefs, strategies and training (n=25).
- Creative, musical and innovative projects (n=18).
- Creativity, psycho-pedagogical variables and music education (n=10).

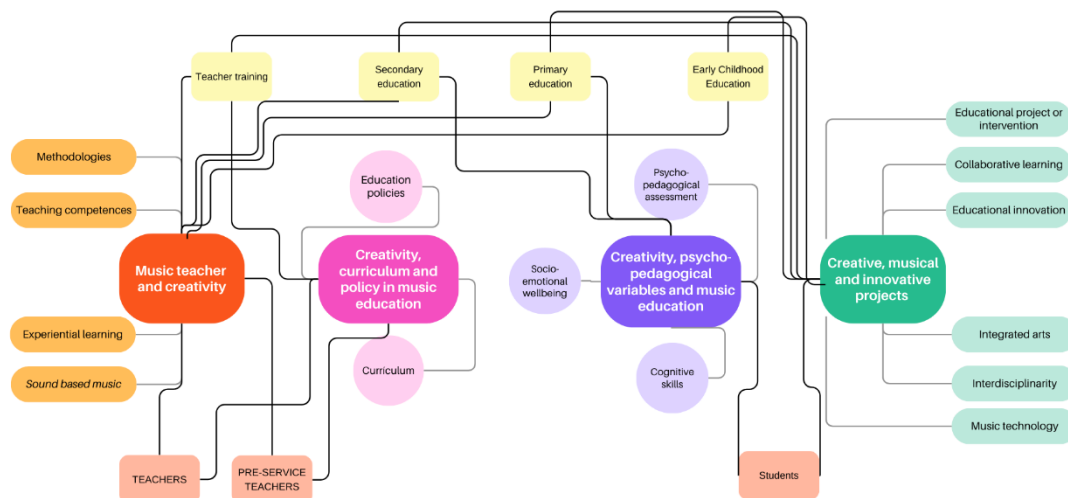


Figure 2. Conceptual map of categories and descriptors for the selected set of articles

3.1. Creativity, curriculum and policy in music education

Being the category comprising the fewest records in the sample ($n=4$), these analyse the relationship between educational legislation, the music curriculum, teaching practices and music teacher training with creativity as a cross-cutting aspect. In the case of England (Hennessy, 2015), creativity has an important role in the music curriculum, however, it does not have the same involvement in teaching plans. The new learning standards for music education in the United States, proposed by NAFME in 2014, emphasise the artistic processes of creation, performance and response (Kim, 2017). In Wales, the latest education reform brought in a competency-based approach and supported learning from creative experiences (Breeze, *et al.*, 2023). And in Spain, initial teacher training curricula were analysed in relation to the Music curriculum in primary and secondary education, indicating that there is a need to orient this training towards creativity, citizenship and lifelong learning (Blanco, & Peñalba, 2020).

3.2. The music teacher and creativity: teacher profile, strategies and training

This category contains the most articles ($n=25$) and encompasses all the studies that considered creativity as a necessary aspect in the profile of the 21st century music teacher. This profile enables the implementation of innovative teaching methodologies, strategies and resources that favour creative processes in the classroom, as well as creative pedagogies that facilitate music teaching. These studies also show the importance of initial teacher training in the development of key beliefs and competences for the shaping of this profile (Carrillo, & Vilar, 2014).

Furthermore, students' low interest and appreciation of music seems to be related to directive teaching strategies based on traditional expository and interpretative models and away from active and creative methodologies (Chen, & O'Neill, 2020; Ho, 2022; Mochere, 2017). In terms of the type of activities, music and sound creation is the least represented in music classrooms (Bogojević, & Pance, 2022; Riaño, *et al.*, 2022; Sungurtekin, 2021; Svalina, & Sukop,

2021). The importance of creativity assessment in facilitating creative activities, both in their process and product, is also highlighted as it relates to music teachers' beliefs (Kokotsaki, & Newton, 2015; Bolden, & DeLuca, 2022; Devaney, 2023). Thus, it is evident that there is a need to renew teaching practices in favour of creative teaching and learning, through the recognition of children's creative processes and offering a diversity of imaginative experiences (King, 2020), incorporating creative musical play in an environment of freedom that favours exploration and sonic experimentation (Adams, & Beauchamp, 2021; John *et al.*, 2016; Peñalba, *et al.*, 2021), with engaging resources (Arriaga, *et al.*, 2021; Hart, 2017) and integrated approaches (Lau, & Grieshaber, 2018).

The conclusions of these studies reaffirm the importance of training future teachers to ensure the presence of creativity in music classrooms. Furthermore, within this category we find studies that have specifically investigated initial teacher training (n=7). Abramo and Reynolds (2015) indicated the need to offer creative pedagogy in music teacher education in a transversal way or through specific courses (Fekete, *et al.*, 2022). Others indicated that the development of creative practices in music teacher education can help to improve confidence in their musical skills and transform the preconceived beliefs of future teachers towards creative learning (Murillo, & Tejada, 2022). There are also studies that highlighted the importance of generating creative and innovative experiences in teacher training, initiatives and collaborative spaces to improve teaching competences where creativity is the starting point (Arriaga, *et al.*, 2019; Berbel, *et al.*, 2020; Ocaña-Fernández *et al.*, 2020). And in other innovative experiences of in-service teacher training (Hendriks, *et al.*, 2023), the effects of *Video Feedback Coaching* to support music teachers' verbal and musical creative autonomy were investigated.

3.3. Creative, musical and innovative projects

The following are all studies based on creative projects which, although they are part of teachers' work and reflect their good practice, deserve a separate category because of their interdisciplinary and innovative nature. It should be noted that all of them were mainly carried out in the context of Primary (n= 9) and Secondary (n= 10) education and that many of these projects belong to national and international research projects. Interdisciplinarity, collaborative learning, the use of new technologies and openness to new artistic languages through work with sound mark the identity of these innovative projects.

Communication and collaboration between the scientific and educational community is very present in current educational projects, many of which are based on the STEAM (Science, Technology, Engineering, Arts & Mathematics) movement, where scientific and creative processes are generated from musical and sound experimentation (Ben-Horin, *et al.*, 2017; Gershon, & Ben-Horin, 2014; Ito, & Nakayama, 2014; Viñas, *et al.*, 2022). The use of digital technology to facilitate and enrich creative processes is present in almost all of these projects (Aaron, *et al.*, 2016; Dannenberg, *et al.*, 2023).

In turn, these collaborative creation projects are mediated in many cases by artists and musicians, based on the importance of multiple creativities and with socio-cultural perspectives (Viig, 2019; Waddington-Jones, *et al.*, 2019), even generating learning communities (Whitaker, 2016) that favour educational and creative processes. In turn, this type of creative projects through

mediation provide benefits to students on a socio-emotional level (Bautista, *et al.*, 2018; Žnidaršič, 2020).

Creative experiences were also carried out with an integrated arts approach (Yelo, 2018) and openness to new sonorities and current artistic languages (Murillo, *et al.*, 2019), favouring social inclusion (Duarte-García, & Sigal-Sefchovich, 2019). Other music creation projects allowed us to understand learning processes, such as participatory creativity, based on fixed and moving visual supports (Lage-Gómez, & Cremades-Andreu, 2018, 2020, 2021; Cremades-Andreu, & Lage-Gómez, 2023).

3.4. Creativity, psycho-pedagogical variables and music education

This category includes those studies, mostly experimental or quasi-experimental, in which the aim is to evaluate creativity or some of its components, or to search for the relationship between creativity and other psycho-pedagogical variables involved in music learning. Most of these studies have been carried out in the educational context of Secondary (n=5) and Primary (n=4) Education and some at University (n=1), with no studies in Early Childhood Education.

The elements of creativity that co-influence music learning were studied, concluding that collaborative creativity supports musical learning and enhances a sense of well-being (Burnard, & Dragovic, 2015). There is a relationship between musical self-concept and creativity in students, indicating that positive musical self-concept tends to foster musical creativity (Mawang, *et al.*, 2019), between students' creativity levels and their musical achievement or attitudes (Kibici, 2022) and between achievement goal motivation and musical creativity (Mawang, *et al.*, 2020).

Studies such as Fazaie and Ashayeri (2018) reaffirmed that music teaching in primary school through creative activities influences children's creativity and that methods using it are effective for music learning, such as the study of the positive effect on children's creativity through a music education intervention in primary school based on the Theory of Multiple Intelligences (Yeşilkaya, & Töreyn, 2022).

In terms of the use of teaching techniques and resources, Zhang (2023) demonstrated the effectiveness of musical improvisation in the development of creative thinking in secondary school students. Wong and Lim (2017) concluded that musical compositions created by primary school students can be more creative through the use of mental imagery. The *Aytürk* technique, used within a programme of creative activities in music classes, was found to have a positive effect on students' creativity (Ertürkler, & Bağci, 2019).

4. Discussion and conclusions

This review study, which set out to understand the role of creativity in music education today through the most recent research, yielded a number of results. The most recent literature on this topic is still concerned with clarifying the processes and elements that accompany musical creativity, but also how these influence music learning. But it is also interested in the implications of current educational reforms on the teaching of music for creativity, investigating the teaching

practices and profiles that favour creative music learning, also from the point of view of teacher training, and disseminating innovative educational projects based on musical and sound creation.

These studies develop their research mainly in Primary and Secondary Education, but there are few studies in Early Childhood Education. Although the study of musical creativity in early childhood from its psychological dimension has been and continues to be a very profuse field of research, it seems that it is not so profuse from its pedagogical dimension. This scarcity of studies in Early Childhood Education in the field of school music education may be related to teacher training (Díaz, 2005).

Another of the results of this research is the growing interest of the scientific community in recent years in the adaptation of teaching practices to the educational principles and methodological guidelines related to creativity in basic education curricula (Hennessy, 2015; Blanco, & Peñalba, 2020). Globally, with the turn of the century, education systems began to look more than ever towards creativity, promoting the development of creative competences in the school stage and thus adapting to the social and cultural needs of the 21st century. However, it seems that the reality in general music education classrooms is different and creative pedagogies still have little involvement compared to other more traditional teaching models (Bogojević, & Pance, 2022; Riaño, *et al.*, 2022; Sungurtekin, 2021; Svalina, & Sukop, 2021). Therefore, teacher involvement is necessary and teachers need urgent support to improve their pedagogical approaches and promote students' creativity (Tan, *et al.*, 2019).

Many of these studies also pointed to the profile of music teachers, with their thoughts, beliefs, skills and abilities as determinants of the presence of creativity in their teaching performance. Certain personal characteristics of creative pedagogues have been recognised (Abramo, & Reynolds, 2015), but also music teachers' beliefs about creativity, which are marked by myths and stereotypes that can negatively affect the performance of creative activities, as well as their assessment (Mullet, *et al.*, 2016; Odena, & Welch, 2009). It is also highlighted that initial teacher education can contribute to this creative profile of the music teacher by providing future teachers with the necessary competences to address the creative needs of today's education (Grossman, & McDonald, 2008).

In turn, and despite the fact that according to these studies the participation of creativity in music classrooms seems to be scarce, the most recent literature reports the success of innovative projects within the framework of music education whose hallmarks are the collaborative creation, interdisciplinarity, the use of digital technologies and openness to sound and new languages of music. Understanding that human abilities to coordinate activities with others, in a collaborative or cooperative way, emerge from an early age, giving identity and a sense of belonging (Barret, 2014), that collaborative composition has a strong impact on well-being (Waddington-Jones, *et al.*, 2019) and that these elements favour music learning (Burnard, & Dragovic, 2015), it seems indisputable that collaborative creation is the model of choice for the most current innovative projects.

On the other hand, the technological development of the last decades has influenced the teaching and learning processes, and an example of this is the notable participation of technology in the most recent research on creativity in music education. In this educational field, technology has significantly transformed the practices of sound creation and musical composition with the incorporation of new hardware, software and other digital tools, these resources favouring the

methodological processes for such creation (Chen, & O'Neill, 2020). The use of technology in music and sound creation projects has demonstrated greater student motivation towards such creation, an openness of students towards different musical styles and sensitivity towards sound (Murillo, *et al.*, 2019), indicating in some cases the need for teacher training in the use of these technologies.

Many of the collaborative and interdisciplinary creation projects found in recent research in the field of music education are based on an integrated arts approach where music, together with dance, poetry or audiovisual arts, work towards a common goal through creation or by seeking artistic creation in itself. In this way, working from the integrated arts allows a methodological approach that uses art as a way of discovering the world, integrating the knowledge of the different artistic disciplines in the creative process, promoting and building integrated knowledge in them (Faria, 2022). As an extension of collaborative and interdisciplinary creation, it is also relevant to mention how Sound Based Music³ (Landy, 2007) is progressively approaching music classrooms, as shown by recent research (Murillo, *et al.*, 2019; Waddington-Jones, *et al.*, 2019). This creative and interdisciplinary vision from the integrated arts brings an innovative approach to teaching practices, also having its scope in initial teacher training (Berbel, *et al.*, 2020).

Another aspect that defines the creative landscape of music education today is the opening of these creative and innovative projects to the participation of other professionals, thus crossing the boundaries of the school to other spaces such as cultural and artistic mediation. The support of creative professionals, such as qualified mentors or arts organisations, allowing for dialogue and joint construction of knowledge with teachers, can be a favourable way to promote creativity in the classroom (Gandini, *et al.*, 2005).

In summary, the studies show that researchers' interest continues to focus on the phenomena that accompany creativity in the processes of teaching and learning music and vice versa, as in previous decades, but incorporating new concepts such as collaborative creation, interdisciplinarity, integrated arts, creation as a process, multiple creativities, mediation or technology at the service of these processes. The concern for the teaching task, as the one directly responsible for the existence of creativity in music classrooms, is also present in these investigations, which contribute to the design of the music teaching profile that facilitates creative processes and call the attention of higher education to guarantee the competences in creative pedagogy of future music teachers. Although the studies that have investigated teaching practices and strategies maintain that music teachers currently promote few creative practices in their classes, there are innovative creative projects that are opening the doors of creativity to music and art education.

Finally, as limitations of this study, it is mentioned that the literature search in other databases could have yielded other results, that only articles in English and Spanish were selected, and that the selected studies were all successful, thus affecting the bias of the sample.

As a prospective, the research community is invited to look more deeply into the scope of creative pedagogy in general music education, but especially in the Early Childhood Education

³ A term coined by Landy (2007) and defined as "an art form in which sound, rather than the musical note, is the basic unit" to encompass different works based on electroacoustic music.

stage, as this is a very important aspect for the integral development of children and is a field in which few studies have been found.

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