# Synthesis about Musical Talent: Integrative Review with Meta-Analysis and Complementary Discussions

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**Abstract**
Talented students are in the most diverse areas and are a Special Education audience. The objective of this work was to know which were the productions about musical talent. An integrative review was carried out with meta-analysis and qualitative discussion. The temporal cut was made between the years 2019 and 2021 in 14 databases using nine descriptors and eight keywords. The results showed that aptitude, talent and expertise are the most used terms. Standardized or qualitative procedures did not differ ($p<0.05$) in preference. It was found that the productions had many participants and there were no significant differences in musicality or training among them. Thus, 78 authors consider it positive to identify and act in the educational process of talented people. In addition, Brazil ranked second in the production ranking, behind the United States, with 2020 being the most fruitful year. It is concluded that there are educational benefits in the designation of musical talent, however collaborative networks and more research in the area are needed.

**Keywords**: special education; musical education; talent; identification.

## Introduction

In Brazil, there is legislation that ensures specialized educational attention to talented students in different areas, and Music and other Artistic Languages are considered in this context. The National Education Guidelines and Bases Law, n° 9394/96, and the National Policy on Special Education from the Perspective on Inclusive Education (Brasil, 1996; 2008[1]) are legal provisions that designate talented students as a Special Education audience. and give them the right to identification and special educational attention, intra and/or extra-school, as well as curricular supplementation (Brasil; 2013). It is also noteworthy that legal support for talented students occurs from Early Childhood Education to Higher Education (Brasil, 1996).

[1] The legislation uses the term high abilities or giftedness to designate students with talent (Brasil, 1996). However, due to the theoretical scope of this research, we will use the term talent (Haroutounian, 2002; Kirnarskaya, 2004). We also highlight that the 2008 policy was updated in 2020 (National Policy on Special Education: Equitable, Inclusive and with Lifelong Learning), but it is pending in the Federal Supreme Court and was not in force at the time of writing this text.

On the other hand, Music Education is not present in all schools as a mandatory subject of the school curriculum and there is Law 13,278/16 (Brasil, 2016), which weakened the obligation of teaching Music that was present in Law 11,769/08 (Brasil, 2008).

In addition, funding cuts, due to the crisis and COVID-19, for schools specializing in Music (public conservatories), social projects and other free institutions, make it difficult for the most economically vulnerable students to access professional music education, and make it unfeasible teachers' work in the musical training of students, including talented ones. The private sector has offered this education, but through values, which are not always within the financial reach of many students.

With the existence of legislation in the area of Special Education, some impacts are perceived as: the school census, of 2020, brought a number of 24,132 students with talent identified in Brazilian schools of Basic Education (INEP, 2020), the Núcleos de Atividades de Altas Habilidades/Superdotação[2] (NAHHS), installed throughout Brazil, including the Joãozinho Trinta Nucleus in São Luís, Maranhão[3], with significant work in Music, and the Centros para o Desenvolvimento do Potencial e Talento[4] (CEDET) based in Lavras, Minas Gerais. All of them serve talented students, not only in the musical area, free of charge and in partnership with public schools. It is worth mentioning that there are other public and private initiatives with this type of educational attention.

From an international perspective, there are laws and programs concerned with enrichment in the most different areas of knowledge. These initiatives can be found in studies by Gardner *et al.* (2010)[5], Marejón (2019)[6], Haroutounian (2019)[7], Renzulli (2021)[8], to name a few.

The scientific community has also shown interest in musical talent, including areas such as Psychology and Education (Koga, 2019). However, the scientific community highlights the fear that the topic generates among music professionals, terminological confusion and discussions about the origin of the phenomenon, its nature and more democratic educational actions when thinking about musical talent and Music Education (Haroutounian), 2002; 2019; Abramo; Natale-Abramo, 2020).

Since Rubeinstein (1967) and other authors before him, the social, economic, political, ideological, philosophical, educational, psychological dimensions, among others of talent have been discussed. So much so that Gordon (2015) summarizes that the problem of valuing Music Education or the teaching of Music itself, as well as talent, are not exclusive to the present,

[2] Activities of High Skills/Giftedness Nucleous
[3] https://www.instagram.com/naahsjoaosinhotrinta/?hl=pt
[4] Centers for the Development of Potential and Talent http://aspatlavras.blogspot.com/p/cedet.html
[5] http://www.pz.harvard.edu/who-we-are
[6] http://cepac.edu.jalisco.gob.mx/
[7] https://www.joanneharoutounian.com/
[8]https://www.hartfordschools.org/enroll/school-directory-2/dr-joseph-s-renzulli-gifted-and-talented-academy

much less to a specific country, but above all something that seems to be globalized. At the same time, there is research demonstrating the benefits of identifying and providing educational support to talented students (Guenther, 2012; Koga, 2017; Ogando, 2017; Koga; Rangni, 2021; Gagné, 2018; Haroutounian, 2019; Kirnarskaya, 2020).

We can think of musical talent as a vortex[9], which we can infer that has as its starting point the spark or the emergence of *homo musicus* (when the subject is "born" for Music). Dissipating over time, the phenomenon has a phylogenetic, ontogenetic and sociogenic character (Haroutounian, 2002; 2019; Kirnarskaya, 2004; 2020).

The environment plays a leading role, because it enables musical internalization through interaction among subjects and subject-environment - there are pressures exerted in this interactive contact. This vortex is based on resumptions and advances in jumps and there is a dialectic between the nuances or variables that compose talent, which can be expressed by the subject in an endogenous and exogenous way. Elementary and higher auditory skills linked to perception are at the vortex of musical talent, including, due to it and musical memory can be correlated with higher psychological functions (sensation, perception, attention, memory, language, thinking, imagination) (Teplov, 1966; Lúria; Vygotsky, 1996; Quiroga-Martinez et al., 2020).

In addition, precocity, multiple intelligences (fluency between musical intelligence and others possible combinations), synesthesia/aesthetic sense, emotion, motivation, affectivity, creativity (giftedness), psychomotricity, use of resources (signs and musical elements), resilience, perseverance (libido), personality, identity, uniqueness and conscience. In summary, musical talent results from the confluence of many factors (Gardner, 1993; Winner, 1996; Ziegel; Heller, 2000; Freud, 2011; Gordon, 2015; Dabrowiski, 2016; Gagné; Mcperson, 2016; Knyazeva, 2019; Quiroga-Martinez et al., 2020; Rosen et al., 2020; Semenova, 2020; Dobai; Hopikns, 2021; Stuart, 2021).

Although we can bring some nuances, which are present in the phenomenon of musical talent, there is another common concept among musicians; it's about *expertise.* This concept, according to Ribeiro and Galvão (2018), is defined as an exceptional performance, systematically developed, in a given domain area, and self-regulation and metacognition are involved in the process. Motivation plays an important role in the process because it makes it possible to access the *flow*, which is provoked by the subject's immersion in the activities of interest. Still, Ribeiro and Galvão (2018) comment on those based on the theory of Ericsson and Chamess (1994) in which the expert is always looking for personal satisfaction, which he

[9] Mathematical concept meaning the amount of rotation of a fluid. It is not a simple spiral because it conserves the elements at the same time it is transformed, that is, the initial essence remains. The concept was thought from the studies of Mortatti (2000). This theoretical principle of the vortex was capable of replication when we theorized the association of this perspective with the phenomenon of musical talent.

never fully achieves, but it becomes the propulsion to continue, that is, a kind of libido for deliberate practice.

Musical talent can be thought of from different theoretical perspectives and there are many ways or possibilities to measure it scientifically. Therefore, for this study, the following questions were raised: What were the national and international academic productions, when it comes to musical talent in the years 2019 to October 2021? Is the identification of musical talent expressive or not and what are the consequences?

In terms of hypothesis, identifying talented subjects helps so that educational actions can be implemented, such as access to resources and specialized services. Otherwise, it would cause tensions, including emotional ones, and damage to development would be observable, mainly in subjects with socioeconomic disadvantage.

In this context, this article refers to the objective of presenting the results of an integrative literature review with meta-analysis associated with a complementary qualitative analysis. The searches were carried out in different databases, using descriptors and keywords from 2019 to October 2021, in order to verify and analyze what has been produced about musical talent and whether this academic production qualifies as effective/important whether or not the talent designation.

## Method

For the study, an Integrative Review was undertaken, whose analysis originates from experimental and non-experimental designs, theoretical data, articles and other documents in order to expand the scope of analysis and understanding of a given phenomenon (Souza et al., 2010; Kuabara et al., 2014).

In addition, there was an extended bibliographic review carried out by the Author (2019), for this fact the option of the time frame chosen from January 2019 to October 2021 is due, selecting only studies dedicated exclusively to musical talent, in their various aspects.

For the selection of research, a search was carried out in the following national and international databases: *Sage Full-Text Collection*, SCOPUS (Science Direct and Elsevier), Brazilian Open Access Scientific Publications Portal (OASIS), *Google Scholar*, Library Scientific Electronics of Russia (eLIBRARY.RU), *Wanfangdata* (China), *Networked Digital Library of Theses and Dissertations* (NDLTD), Brazilian Digital Library of Theses and Dissertations (BDTD), Catalog of Theses and Dissertations (CAPES), *American Psychological Association* (APA Psycnet), Virtual Health Library (VHL), Amplify, ISTOR and *Directory of Open Access Jour*nals (DOAJ).

Furthermore, there was a basis in the Brazilian Education Thesaurus and UNESCO (United Nations Educational, Scientific and Cultural Organization) and also in the specialized literature in the area of talent, and in research by Haroutounian (2002) and Abramo *et al.*

Natale-Abramo (2020) regarding the terms in the musical area referring to talent. The selected descriptors[10] were: aptitude, talent, high abilities, giftedness, intelligence, precocity, genius (genius), abilities and creativity. In addition to these, the keywords were selected: giftedness, giftedness and talent, high skills or giftedness, high skills/giftedness, expertise, prodigy, high capacity and double exceptionality, all combined, through the Boolean operators AND and/or OR, with the music and musical variations. Descriptors and keywords were searched in other languages (English, Spanish, French, Russian, Chinese and other specific languages). The translations were carried out based on the authors' research, specific literature about the subject and native researchers, who collaborated with the translation by corresponding with the researcher by e-mail.

- The inclusion criteria adopted were:

1 – Research with an exclusive focus on musical talent (identification, evaluation and/or interventions);

2 – Researches with well-descriptive and well-founded designs;

3 – Researches that indicated the context of action with musical talent (practical actions and public policies).

- The exclusion criteria were:

1 – Researches that used comprehensive screening tools, which could indicate talented students in any domain area.

2 – Researches with undefined methodologies, data analysis and results without systematic details.

During the search for the productions, the following strategies were applied: location, recovery, gathering, selection and organization. Additionally, a database (*Excel@*) was created to store the searches found.

The data were analyzed, preliminarily, from the descriptive statistics with the distribution of measures, in order to observe the indexes of the productions in relation to the year of publication and country of origin. In addition, it was verified how many studies had participants and the total N of adherence, as well as the methodological choices and forms of data analysis[11] (Field, 2009; Vieira, 2018).

The meta-analysis was undertaken as a secondary investigation in order to verify, together with the randomized studies, whether there were statistically significant differences among the studies that dealt with the identification or assessment of talent (Santos; Cunha, 2013; Pereira; Gillanders, 2019; Chen; Beaty; Qiu (2020).

[10] Only the terms contained in the Thesaurus/INEP library are considered descriptors, the others were considered as keywords (Brandau et al. (2005).

[11] All statistical analyzes of the present study were through IBM® SPSS software https://www.ibm.com/analytics/spss-statistics-software

In addition, research with some kind of empirical control and qualitative methodologies were analyzed in order to analyze the results and conclusions that were reached in the face of designation or interventions with talented subjects (Souza et al., 2010).

In summary, in this article, qualitative and quantitative research are considered as a result of studies originating in different areas, as we can see in the study by Beccacece *et al.* (2021). Beyond the borders of the Music area, the interdisciplinarity occurs with the areas of Health and/or Biological, Exact, and Human and Social Sciences.

## Results

The searches resulted in a synthesis of research found in all databases with the initial selection sieve, above all, it reveals the incidence of research when the focus is on musical talent. Figure 1 illustrates the selection steps.

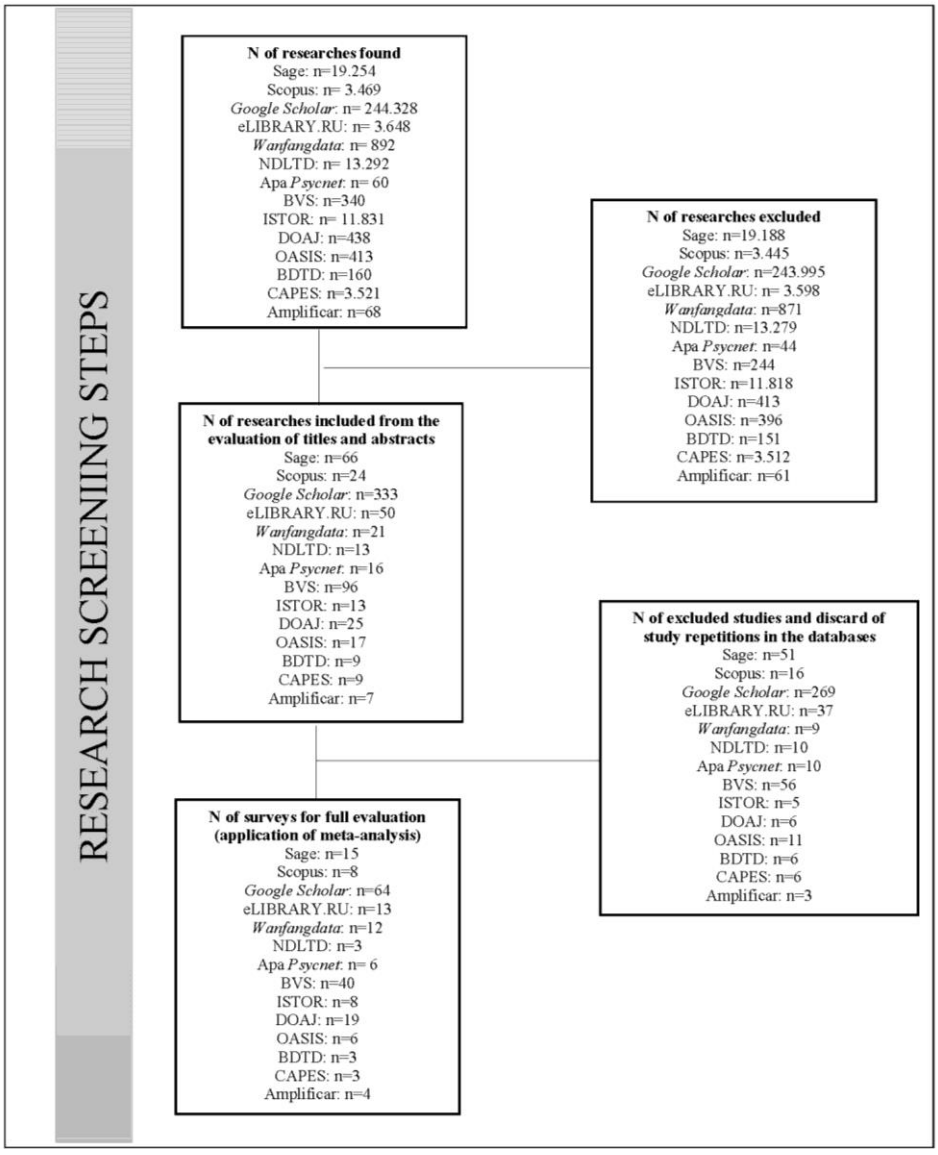
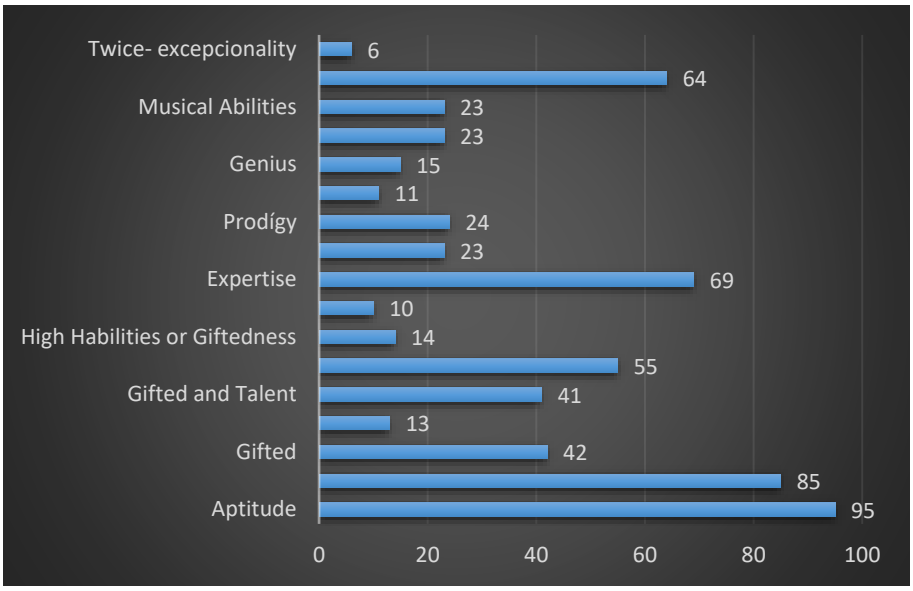



Figure 1 – Initial selection steps on musical talent (source: prepared by the authors)

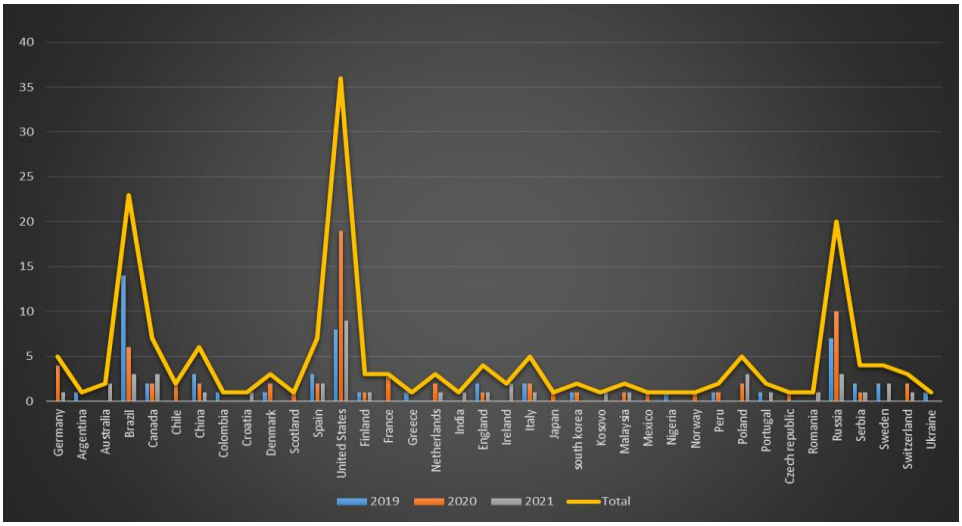
When performing a preliminary sieve, the presence of descriptors and keywords in the titles and abstracts of the research is verified. It should be noted that the translations of each term are accounted for. The scenario found was:




Graph 1 – Index of use of descriptors and keywords in research (source: prepared by the authors)

Graph 1 shows that the most recurrent descriptors and keywords, in n=613 surveys, were aptitude followed by talent, expertise, creativity and giftedness. Thus, there was an average of 36.06 among the choices with a standard deviation of 27.9.

After reading the texts in full, studies with repeated elements originating from the same author were excluded. They were organized into a general total by country and separated by year of publication as a way of analyzing the trend (yellow line/total in Graph 2) in the area of musical talent between 2019 and 2021. Graph 2 exemplifies the number of studies found.



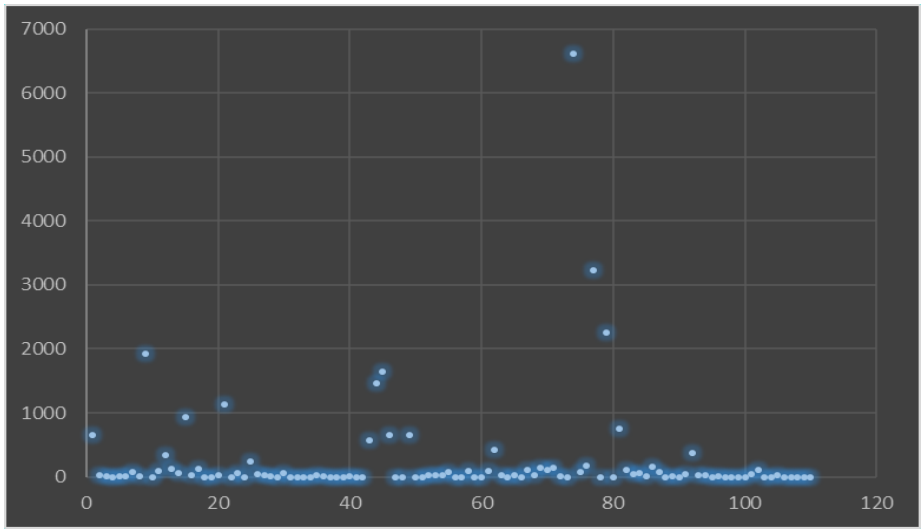

Graph 2 – Summary of surveys found by year and country (source: prepared by the authors)

From the results of publication/year and country, it was possible to find n=55 studies published in 2019, n=71 in 2020 and n=43 in 2021 (until October of this year) in a universe of n=169 national and international. Considering the sum of the three years, the most productive countries were: first the United States with n=36 researches, secondly Brazil with n=23 and then Russia with n=20 publications. When analyzing the distribution of values, in Table 1, it is observed that 2020 was the most productive year in publications. It is also inferred that there was no considerable dispersion of values. However, it is imperative to highlight the correlation between the results and the increase in production from 2019 to 2020 and the decrease from 2020 to 2021, until the searches are carried out, as shown in Table 1.

| YEAR/COUNTRY | VARIATION (Min - Max) | MEDIAN | DISPERSION (Q1 - Q3) |
|---|---|---|---|
| 2019 | 0 - 14 | 1 | 0 - 1,71 |
| 2020 | 0 - 19 | 1 | 0 - 2 |
| 2021 | 0 - 9 | 1 | 0 - 1 |
| TOTAL N=38 | 0 - 42 | 3 | 0 - 4,71 |

Table 1 – Research performance in 2019, 2020 and 2021 (source: prepared by the authors)

The following data underwent a new evaluative sieve within the scope of the methodological structure of each research. In the present stage, only n=110 studies were considered. When analyzing them, n=41 (37.3%) theoretical studies were found while n=69 (62.7%) were empirical, in which one study with n=6,610 participants and another two with n=3,235 is evidenced and n=2,260. In this context, it is worth mentioning that there are other studies with high numbers of participants. Graph 2 is a demonstration of these results, with the highest heights indicating the surveys with the highest rate or adherence of participants.



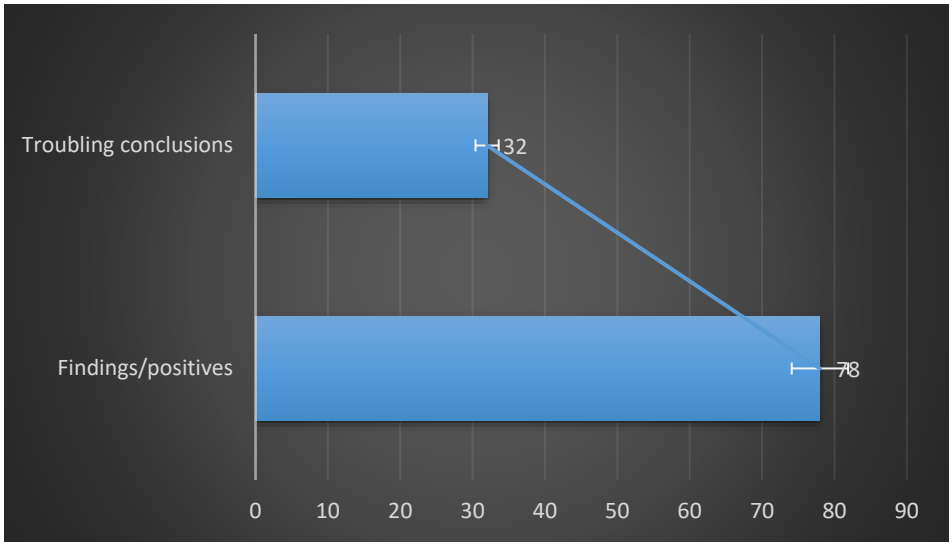

Graph 2 – Scatter diagram of survey results versus number of participants (source: prepared by the authors)

When considering the methodological choices of the authors, we have: n=58 (52.7%) studies using standardized or psychometric instruments (tests, scales, protocols, questionnaires, checklist, etc.) and n=52 (47.2%) and qualitative instruments (interviews, open-ended questionnaires, observation strategies or activities, etc.). From the 110 studies, n=67 (60.9%) were randomized or had some type of control and n=43 (39.0%) were qualitative. Also, in this universe, n=64 (58.1%) used statistical treatment of the data and n=46 (41.8%) qualitatively discussed their results.

In the study by Svalina and Lapat (2021) it was possible to find some results that are in line with the analysis we performed earlier on the choice between the qualitative and quantitative method for performing screenings. These authors found, in n=1130 teachers, that there was a preference for more quantitative ways to carry out the identification (M=3.80; SD=0.81). As the findings previously indicated a greater amount of research using the quantitative method, it was decided to apply the Chi-square (X2) statistical test to verify if there was significance in the difference found.

When applying the Chi-square (X2) in n=110 studies, $p<0.05$ was obtained (there was a null hypothesis). This means that the choice or criteria for using a randomized/psychometric procedure or a more qualitative one do not differ significantly, that is, it was not possible to say whether the authors found (n=110) have a preference for one measurement strategy or another of musical talent.

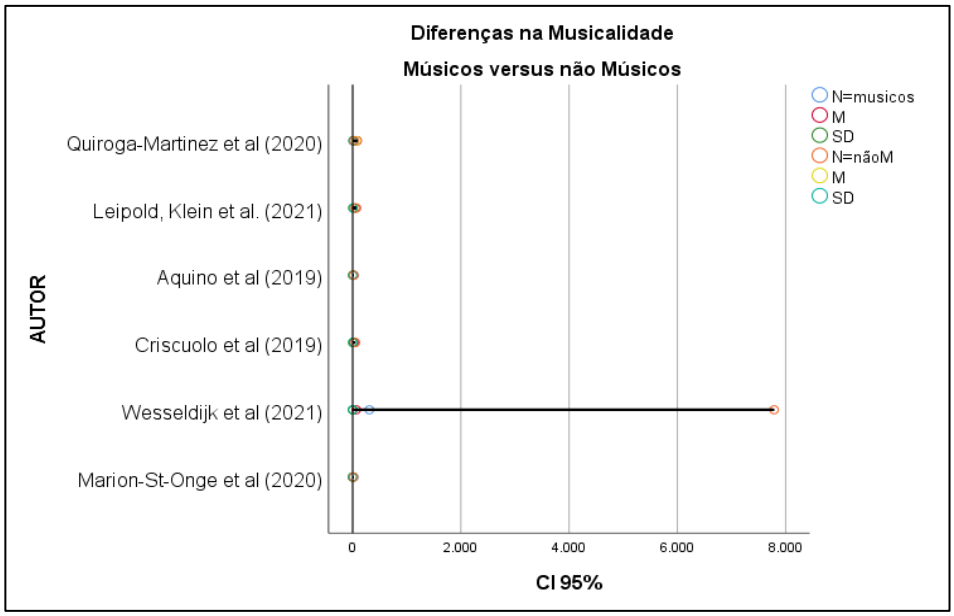
When analyzing the authors' conclusive results, a higher rate of discoveries is observed (a positive factor for researchers) around theorizations about musical talent. Graph 3 illustrates them.




Graph 3 – Overview of the conclusion of the studies surveyed
(source: prepared by the authors)

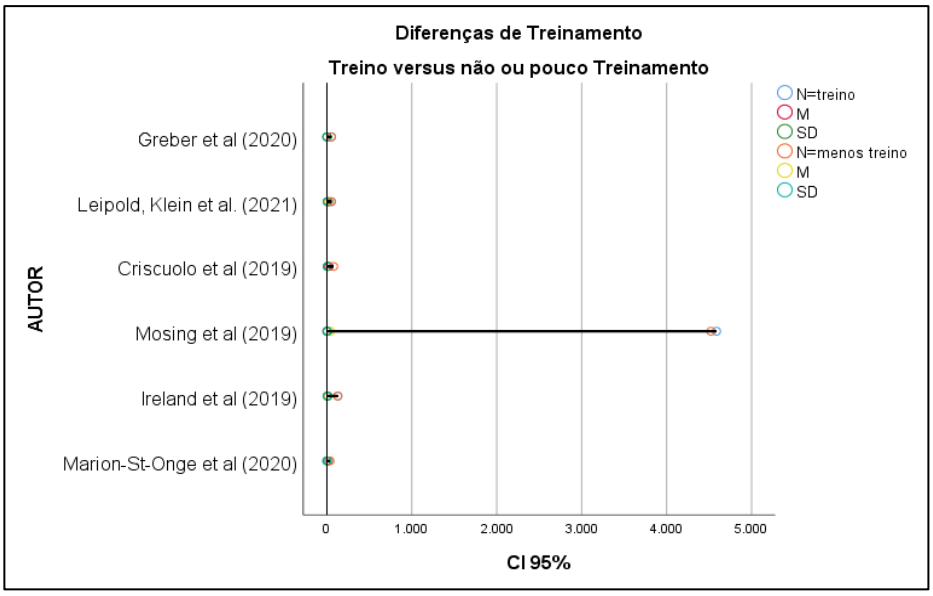
In general terms (n=78) authors present positive points in the designation of talent, they even indicate the benefits caused by this practice. However, n=32 affirms the need to proceed with caution due to the consequences caused by the identification. They list the lack of resources, emotional issues, lack and application of public policies, local social culture, family, school, among others.

When selecting only randomized studies (n=06) with experimental and control groups, it was noted that the difference in musicality between musicians and non-musicians is not statistically significant. The study by Wesseldijk et al. (2021) demonstrates expressiveness due to the large N of participants, but even so there is no tendency towards better musicality among musicians or non-musicians. Graph 4 represents this finding.




Graph 4 – Sketch of the differences between musicians and non-musicians (source: exported from SPSS statistical software)

When analyzing the possible differences and the effects of musical training, it is noticed that there is no statistically significant difference. Mosing et al. (2019) also stands out due to the large N of participants in their study. It should be noted that there are randomized studies from the previous analysis and there are others that were added, and in general n=06 studies were also analyzed. Graph 5 illustrates the outline of training differences.




Graph 5 **–** Sketch of training differences (source: exported from SPSS statistical software)

From the revealed data, Figure 2, below, contains the *cloud word* of the conclusions of non-parametric research or with some control and the qualitative ones.


Figure 2 **–** Cloud word (source: prepared by the authors)

When analyzing it, it was possible to highlight the following words and concepts: musical/music, talent, skills, development, practice, results, intelligence, participants, students, training. In lesser prominence, but not less important: educational processes, domains, auditory, research, etc.

## Discussions

When analyzing the research index, in Figure 1, we found different areas of human knowledge interested in the aspects and characteristics involved in the manifestation of musical talent, including, these productions were in databases, which index high impact journals, such as to Elsevier/SCOPUS.

There is an expressive number of productions linked to journals in the areas of Health and Biology, which demonstrates the interest of researchers in the origin of talent in relation to elements of a genetic order *versus* development.

Supported by such questions, established theorists, in addition to those included in this review, have been interested in talent in the area of Music with the aim of investigating this phenomenon, including in an interdisciplinary way (Teplov, 1962; Gardner, 1993; Ericsson; Chamess, 1994); Haroutounian, 2002; 2019; Kirnarskaya, 2004; 2020; Gordon, 2015; Gagné; Macperson, 2016); Ribeiro; Galvão, 2018; Renzulli, 2021).

It can be noticed in the results represented in Graphs 4 and 5, the efforts of the researchers in measuring the musicality differences and the possible impacts of the training. Significant differences between the means and standard deviation of the studies in question were not found. There are evidently limitations in this research and, possibly, in those that were selected, but regardless of these variables, it is inferred that musical talent can present multiple nuances, such as those evident in the study by Dredge (2021). In addition, there may be a musical basis common to all human beings, but the form of expression of musical talent, the use of musical elements and the way the subject feels it can differentiate, making it complex to point out differences and similarities (Teplov, 1962; Rubeinstein, 1967; Lúria; Vygotsky, 1996; Winner, 1996; Freud, 2011; Haroutounian, 2002; 2019; Kirnarskaya, 2004; 2020).

Based on Graph 1, it is possible to see the number of terms to designate the phenomenon, already studied by Haroutounian (2002) and Abramo and Natale-Abramo (2020). For the three authors mentioned, the fear for the meaning of some of the concepts, such as those presented in Graph 1. The described giftedness (Brazilian translation) - *giftedness* (original term) is feared by many scholars and professionals depending on the musical area. Haroutounian (2002) associates the fear generated by the term *giftedness* with that generated by the word cancer. For her, this occurs as a result of this term not having been conceptualized in Music, but in Psychology, generating myths and misunderstandings when the term transits through the areas.

It is concluded that there are more established and accepted terms and others not so much (Graph 1), which are in line with ideological principles and scientific advances in certain areas, especially when they focus on biological/genetic or innate factors in thinking about talent, because aptitude obtained the highest index in the studies. Next, the term talent, in

addition to being traditional in some areas, due to years of history and use, connects with aptitude, but opens the scope of understanding for systematically developed practice or performance, that is, it expands the conceptual sense, as points out Haroutounian (2002). Third in the *ranking,* the concept of expertise, as it was noted during the review, to be well accepted by music researchers (Mantovani; Santos, 2019; Bullerjahn et al., 2020).

Although the differences are not statistically significant when considering the methodological choice, the number of studies with an expressive N is very small - something that makes possible generalizations and comparisons difficult. Research with considerably robust N, diversified and using validated instruments can collaborate for a deeper analysis of the phenomenon and, thus, to know it better empirically.

It is worth mentioning that qualitative research is not less important, on the contrary, it can also provide endogenous and exogenous data regarding the phenomenon. Thus, here are some examples, which we found during the review and that prove these mentions.

- These are empirically controlled studies with a significant N: those by Wesseldjk *et al.* (2019), Theorell *et al*. (2019), Bullerjahn *et al*. (2020), Lázaro-Tortosa et al. (2021) and the Brazilian study by Authors (2021). These studies varied the N with a maximum value of 6,610 participants and a minimum of 653. When analyzing these studies, we observed the ability of the researchers to generalize the results, and the way in which they controlled and measured the variables.
- In addition, the qualitative research found was: The Brazilian study by Mantovani and Santos (2019), which used phenomenology with inferential descriptive statistics as a way of measuring the impact of training on pianists, and Barrett *et al*. (2020) conducted a case study with a famous jazz pianist (Gabriela Monteiro). He scanned her brain as he improvised. Another study is that of MacCord (2020) in which he also analyzed the brain of a child musician (Stella) in her improvisations.

The Brazilian scenario is expressive as it is in second place in the *ranking* of productions about musical talent. Possibly, this position has the influence of public policies (Brasil, 1996; 2008), as well as issues related to history, cultural-social context and, mainly, scientific production in recent years. The findings revealed more positive than negative points regarding the designation of musical talent (Graph 3 and Figure 2), something that contributes to the continuity of studies (Gagné; Macperson, 2016; Haroutounian, 2019; Nikolaevna, 2019; Knyazeva, 2019; Abramo; Natale-Abramo; Abramo, 2020; Kirnarskaya, 2020; Quiroga-Martinez et al., 2020; Renzulli, 2021; Rosen et al., 2020; Semenova, 2020; Dobai; Hopikns, 2021; Stuart, 2021).

The United States in first place and Russia in third place, the hypothesis is raised that such placements are due to these countries having active researchers such as the Americans Gardner (2020), Renzulli (2021) and Abramo and Natale-Abramo (2020) and the Russian

Haroutounian (2019) and Kirnarskaya (2020), to exemplify. It is worth mentioning that the research by Tagiltseva *et al*. (2019) reports the existence of a Russian federal program with goals for 2016 – 2020 to identify and collaborate for the self-knowledge and development of individuals designated with musical talent, although this program faces difficulties and challenges, as well as historical and cultural issues, he has been successful in identifying and referring talent in Music. Both the United States and Russia have a tradition of music study and talent assignment, as seen in the renowned Julliard[12] schools and the Tchaikovsky Conservatory of the Russian Federation[13] .

Wolfle (1971) already advocated that democracies that wish to survive and advance should value the potential manifested by members of society and Gordon (2015) emphasizes that society has reflected the devaluation of Music and talent through its attitudes. He also adds that this situation will be reversed in a complex and time-consuming way through training and knowledge on the part of professionals and society as a whole. In this sense, it is understood that while there is no awareness of society, through Education, Music Education and the talented potential are not part of the educational goals of governments and society does not understand the differences between music for entertainment in relation to music focused on Science, artistic and professional field, there will be a waste of great artists.

Thus, collaborating for the development of talented people is to contribute to the future of society and for the talented individual to be fulfilled in a certain area of domain (Wolfle, 1971; Rubeinstein, 1967; Dabrowski, 2016); Haroutounian (2019); Macgregor; Müllensiefen, 2019; Reutlinger et al., 2020; Renzulli, 2021).

In summary, researchers are concerned with creating and/or adapting and validating standardized instruments, even the most qualitative procedures, in their methodological choices. Psychophysical/psychometric scales aimed at auditory acuity were the majority among the productions and this type of strategy facilitated the practice of *screening* in the initial designation of musical talent on a large scale. The authors also point out that the identification of talent goes beyond the classroom, including that music requires diversified strategies (Kirnarskaya, 2020). The research found also highlighted the need for integrated services that collaborate for the stimulation of talented individuals, in the same way, Music Education or access to the study of Music, which is a right for all.

Knyazeva et al. (2019) address that intelligence plays an important role, but not a determinant role in musical talent, since research has shown the relationship among musical aptitudes and psychomotricity, attention and inhibitory control or cognition, as well as evidence of an association with the functions executives (Criscuolo et al., 2019).

[12] https://www.juilliard.edu/

[13] https://www.mosconsv.ru/en/default.aspx

In this sense, it was also verified that the lack of disciplines dealing with talent in the degree courses in Music makes the training of teachers unfeasible, with this, myths and stereotypes, as well as common sense, prevent the performance of professionals. In this regard, the studies by Svalina and Lapat (2021) showed that teachers consider it a difficult task to identify and work with talented subjects and signaled the need for collaborative work with specialist teachers and training in the area. The authors concluded that young teachers are more accepting of the challenge of working with talented subjects.

Among the researches, it is clear the importance of stimulating emotional intelligence for the acquisition of autonomy, emotional balance, motivation, self-reflection and awareness (Jais; Farttana, 2020), including when valuing the interaction of the talented subject with the family, school, experts, among others. The authors revealed that talented individuals can present socio-affective asynchronies and can manifest moments of extreme strength to great fragility (Tordjman et al., 2020). Who doesn't remember the personality of Frederick Chopin and Ludwing Van Beethoven in their moments of intense strength and courage, but moments of fragility and loneliness?

In this regard, we point out the studies by Dabrowski (2016) (Positive Disintegration Theory), as it focuses on the relationship of the role of performance via emotion based on human development and claims to be an important mechanism for understanding emotional development. Research points to the importance of collaborative work and partnerships, as evidenced in the studies by Lázaro-Tortosa et al. (2021).

The meaning attributed to musical talent and its social construction has changed throughout history, through the observation of this review study, but the essence of the elements that make up musical talent flows interactively and dialectically through the vortex, transforming into upheavals. It is suspected that there may be an important relationship between the origin of musical talent and human evolution (*homo musicus*) and the constitution of the subject. We can infer that an important difference between talented individuals in music and their peers is the use they make of musical resources and elements, in addition to the manifestation of the numerous variables theorized so far by Science, but these reflections are perspectives that open up for future research (Teplov, 1966; Gardner, 1993; Lúria; Vygotsky, 1996; Winner, 1996; Ziegel; Heller, 2000; Freud, 2011; Gordon, 2015; Gagné; Mcperson, 2016; Haroutounian, 2019; Nikolaevna, 2019; Kirnarskaya, 2020; Quiroga-Martinez et al., 2020; Rosen et al., 2020; Semenova, 2020; Dobai; Hopins, 2021; Marcianiak; Harcoarek, 2021; Stuart, 2021).

## Final considerations

The panorama of academic productions presented an index of quantitative and qualitative studies dedicated to musical talent. They point to strengths in carrying out the

designation, but raised concerns as it requires accessible specialist resources and services, government and society-wide support, as well as further research, including multi-centre research. They point out that identifying talented people contributes to self-knowledge and emotional development, in addition to improving the area of mastery, since identification contributes to the constitution of personality and identity, as well as stimulating autonomy and awareness of oneself and the world.

What about socially and economically disadvantaged people, how can they benefit from access and opportunities? The universe of Music is not always within everyone's reach, given the absence of the discipline of Music Education, whose almost absence is notorious in Brazilian schools. As well as the tiny number of vacancies in social projects and music teaching institutions. Therefore, it is inferred that socioeconomic conditions directly affect the development of musical talent.

In short, we envision a society to protect its democratic and inclusive principles, which values Education, Science, Technology and Culture (artistic languages), as well as its talented members and respects them in their differences and diversity.

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