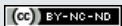




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CEREBRAL PALSY CHILDREN'S INCLUSION IN MUSIC EDUCATION: INSIGHTS FROM INTERVIEWS

ABSTRACT

With the aim of promoting the participation and success of children with Cerebral Palsy (CP) in Music Education in Portugal. A qualitative study was conducted in collaboration with the Cerebral Palsy Association and a Centre for Technological and Communication Resources. The study analysed the challenges and opportunities involved in the processes of including children with CP in the Music Education offered by Artistic Schools in that country. The project team conducted in-depth interviews with a total of 14 parents of children with CP and 14 music professionals who have direct experience working with children with Special Educational Needs in different educational settings. The findings point to persistent barriers to meaningful musical participation, including limited teacher preparation, restricted access to accessible instruments and assistive technologies, shortages of human resources, and weak interdisciplinary coordination. Although Portugal has an established legislative framework for inclusive education, the data reveal a clear gap between policy and everyday practice. Parents highlighted the need for support staff and adapted resources, while music professionals reported limited methodological knowledge but described creative strategies to enable participation. Both groups converged on four priorities: strengthened teacher training, improved access to accessible musical instruments and technologies, more effective coordination between education and health services, and public policies that better translate rights into practical conditions. The coding and validation of the information gathered from the 28 interviews conducted, using webQDA, facilitated the content analysis. Through this analysis, we identified successful strategies, such as tailoring activities to individual students, fostering creativity, and applying principles of human-centred design to assistive technologies. Overall, the study underscores the value of student-centred pedagogical approaches that prioritize meaningful participation and engagement over conventional performance outcomes and technical mastery and offers important directions and practical recommendations for advancing inclusive music education practices for children with CP in Portugal and beyond.

Keywords

Music Education; Cerebral Palsy; Assistive Technologies; Interviews; webQDA.

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1. Introduction

Children with Cerebral Palsy (CP) exhibit significant impairment in their motor skills due to brain damage that occurs early in development. Limited mobility is often accompanied by symptoms such as learning difficulties, spastic tone, epilepsy, and speech disorders (Moreno et al., 2021; Lampe et al., 2019; Vinicius-Filho, et al., 2026). Studies show that playing a musical instrument brings several benefits to children with CP by training sensorimotor interactions (Davanzo et al., 2023; Moreno et al., 2022; Moreno & Maia, 2022; Vinicius-Filho et al., 2026; Wu & Wu, 2025). Playing requires coordination of hand and finger movements with sensory information (auditory, visual, motor, intellectual, and somatosensory) involving continuous information transmission that activates different brain areas and central and peripheral motor structures (Moreno et al., 2025; Davanzo et al., 2023; Vinicius-Filho et al., 2026).

However, the characteristics of CP often limit the ability to learn to play a musical instrument. In most cases, hands are affected, preventing the use of traditional instruments (Davanzo et al., 2023; Moreno et al., 2022; Moreno & Maia, 2022; Vinicius-Filho et al., 2026). Upper limb dysfunction is one of the most important factors affecting daily activities in people with CP (Sharma et al., 2023). Reaching, grasping, and releasing are often impaired due to a limited range of motion and isolated mobility problems in the fingers and thumb (Wu & Wu, 2025). Learning music, therefore, requires adapted approaches and Assistive Technologies (AT) to enable meaningful musical engagement.

Although current Portuguese legislation defines educational inclusion as fundamental (DL. n^o 54/2018, DL. n^o 55/2018) and stipulates that all children should have equal learning opportunities, music courses offered by Artistic Schools (AS) are not yet prepared to accommodate children with motor and communication disabilities due to CP. Accepting a child with CP presents a significant challenge for an AS, as it requires changes at the curriculum level, the use of different learning strategies, the use of AT, and the preparation of teachers and staff (Wangui, 2019). In this context, we have already carried out a characterization of the child who gave rise to this study (Moreno et al., 2021), an Initial Awareness Training aimed at 60 Musical Professionals (MP) located in a Portuguese city near the home of the child who gave rise to the AR Project, to raise awareness of the possibilities that exist to promote inclusion in AS (Davanzo et al., 2023; Moreno et al., 2023a; Moreno et al., 2023b) and completed several literature reviews, to find out what already exists, what can be done and what science says in favour of promoting participation through inclusion (Moreno et al., 2022; Moreno & Maia, 2022). In this context, this article arises from the need to find out in detail what the needs of MP are and to identify the real capacities and weaknesses of children with CP.

2. Theoretical Background

Including a child with CP in the classroom requires differentiated strategies that enable their inclusion, belonging, and participation in all activities.

Studies demonstrate the importance of teachers implementing the following approaches: individualizing instruction, adapting pace and tasks according to each child's functional profile, and using student-centred methods to maximize access and participation (Mambwerere & Dube, 2024; Mohamad, 2023; Moreno et al., 2023a). When children have difficulties with expressive or limited speech, Augmentative and Alternative Communication (AAC) and specialized communication tools are essential (Davanzo et al., 2023; Vinicius-Filho et al., 2026).

AT often play a crucial role, including adapted keyboards and mice, or eye trackers that allow computer access through eye contact. Software such as Grid3, Boardmarker, or “Communicate with Symbols” can facilitate learning for these students (Vinicius-Filho et al., 2026). In Portugal, students should be assessed by Technology and Communication Resource Centre (CRTIC) teams, which support the prescription and free provision of AT and monitor their use.

Promoting student acceptance in the classroom is equally important. Studies suggest applying positive reinforcement strategies and teaching social skills that foster acceptance and participation in inclusive classrooms (Pires et al., 2025). Culturally adapted group activities and inclusive artistic or cultural programs can be modified to enable children with CP to participate meaningfully in classroom life.

Music education has been identified as a promising context for including students with CP, particularly when activities are designed to prioritize participation over performance (Lima, 2024). In inclusive music settings, students may engage through listening, selecting, composing, improvising, and performing in ways that align with their functional profile, communication mode, and interests (Lampe et al., 2019). Such environments can offer multiple avenues for engagement and expression, enabling participation through adapted actions and interfaces (Wangui, 2019). For example, students with limited fine motor control may use single-switch activation, large-surface triggers, or touch/gesture-based technologies, while students with complex communication needs may express musical preferences and make choices through AAC systems.

In this sense, inclusion in music education is not only a matter of “adapting the student” to existing instruments and curricula. It requires redesigning tasks, assessment, and classroom routines so that participation is meaningful and sustained, and so that barriers related to motor execution, fatigue, pace, and communication are reduced. This framing aligns with inclusive education policies and approaches such as Universal Design for Learning (UDL), which emphasize proactive planning for learner variability.

3. Methodology

This study employs a qualitative methodology to provide a contextualized, in-depth analysis of the challenges of including children with CP in music classes. We selected an interpretative qualitative approach because our aim was to understand processes and meanings, rather than to test causal relationships. As Bryman (2017) notes, this approach seeks to capture the complexity of social phenomena through an intersubjective, contextualized lens.

In line with this perspective, we sought to understand how people experience events and interactions in specific situations (Coutinho, 2018). We also adopted a Teacher-as-Researcher stance, which supports a cooperative and flexible methodological orientation (Olson, 1991).

The research question that guided this study was: How do parents of children with CP and music professionals in Portugal perceive the barriers, needs, and enabling strategies for inclusive participation in music education within Portuguese AS?

To collect qualitative data (perceptions, thoughts, feelings, and experiences), we developed questionnaires aligned with our objectives to identify the challenges and opportunities associated with including children with CP in music education within Portuguese AS (Appendix 1 and Appendix 2 - <https://doi.org/10.5281/zenodo.18791942>). Specialists in technology, music teaching, school inclusion, and health validated these questionnaires before we conducted our interview surveys.

3.1. Interview Surveys

The interview is "the most widely used technique in the process of empirical qualitative work" (Minayo & Costa, 2023, p. 13). It allows direct interaction between researchers and interviewees to obtain detailed information (Minayo & Costa, 2019; Coutinho, 2018). Through interviews, we can: (i) analyse meanings interviewees give to their practices, and (ii) obtain information and respondents' perceptions of their reality, beliefs, opinions, or feelings (Amado, 2017; Coutinho, 2018; Minayo & Costa, 2023). To obtain in-depth information, we used intentional sampling, selecting subjects according to clearly defined criteria.

Between January 2021 and January 2022, in collaboration with the Cerebral Palsy Association (CPA) and a CRTIC in Portugal, we interviewed 14 music professionals and 14 parents of children with CP, with 31 January 2022 as the sample date. The interviewees authorized the audio recording and processing of their interviews through informed consent. The interviews were later transcribed in Word and validated by the respective interviewees.

With the aim of developing a program that supports the full inclusion of children with CP in music classes in Portuguese AS, we conducted two interview-based surveys: one with Music Professionals (MP) who work with children with Special Educational Needs (SEN), and another with parents of children with CP. These surveys had the following objectives:

- Find out the strengths and potential, as well as the possible weaknesses or needs, of children with CP, according to the Parents (Appendix 1).
- To record the good actions, strategies, methodologies, or successful projects that have been developed by MP to promote the inclusion of children with SEN in music, considering their needs and interests (Appendix 2).
- To compare the information compiled and the results obtained in both interviews, with the aim of identifying in-depth solutions to promote music learning for children with CP.

Both interview scripts included eight open-ended questions; each aligned with a specific objective.

Questions p1–p3 in the parents' script (Appendix 1) served to break the ice and allowed respondents to speak freely about their child, their interests, and how they access knowledge. Question p4 addressed how the child learns. Questions p5–p7 explored accessibility to artistic and musical activities, the use of digital and assistive technologies, and adaptations that facilitated inclusion. Question p8 allowed parents to raise any relevant issues not covered in earlier questions.

The music professionals' script (Appendix 2) also began with icebreaker questions (p1–p3), enabling respondents to describe their knowledge of technologies and their use in music education. Questions p4–p7 focused on accessibility and adaptations, as well as their experiences working with children with SEN—particularly those with motor impairments related to CP. Question p8 provided space for raising relevant issues not addressed earlier.

Interviews were conducted after receiving EDC approval and GDPR compliance (opinion n° 28-EDC/2019, 7 July 2021). We also obtained informed consent for image, video, and audio recording.

3.2. Qualitative data analysis

All compiled information was processed using the content analysis technique supported by WebQDA software (Costa & Amado, 2018; Coutinho, 2018). This software enabled the organization and systematization of data analysis, allowing the definition of dimensions (Costa & Amado, 2018) necessary for the descriptive and qualitative methodology used in this study. The text files for each interview transcript were uploaded to the WebQDA Internal Sources system. We began by searching for the most frequent words, eliminating those with fewer than four characters, to produce a word cloud. These results guided the coding of sources (interviews). We then made inferences by reading the data inductively. We read the answers to each question, looking for patterns and comparing the data. Since the interview script consisted of open-ended questions, the information collected for each question was not limited to that question but was considered. Categorization was inductively done by text segments. This led us to organize them thematically based on the compiled information rather than the order of the questions. We then analysed the frequencies of the categories related to each theme. Research subjects were indexed under "Classifications" so we could link them to the categories analysed in the WebQDA platform. Based on the frequency of the categories, we moved to "Questioning," using the "Matrices" tool on the WebQDA platform.

4. Results

4.1 Analysis and Results Parents' Interviews

In collaboration with a CPA and a CRTIC in Portugal, we interviewed 14 Parents of children with CP. The population surveyed consisted of 12 mothers, one father, and one grandfather of children with CP. All the respondents are Portuguese.

As for the age range of the 14 Parents interviewed, most are under 50, with four aged 30-39 and five aged 40-49. Only one of the Parents is over 60, and five are aged 50-59.

We will now present the information compiled on the aetiology and typology of the children with CP in the care of the Parents interviewed (Table 1).

Table 1 - Information on children with CP according to their area of injury and aetiology

Age	Information	Limitation
9	Diplegic/dyskinetic CP	motor
8	Hemiplegic CP	motor and communication
9	Ataxic CP w/chromosome 2 alteration	motor and communication
6	Diplegic/dyskinetic CP w/epilepsy	motor
9	Quadriplegic/hypotonic CP w/multi-disabled	motor and intellectual
5	Diplegic/dyskinetic CP w/epilepsy	motor
8	Monoplegic CP	motor
10	Diplegic/spastic CP w/visual impairment	motor and visual
6	Diplegic/spastic CP w/fragile X	motor and intellectual
9	Diplegic/dyskinetic CP	motor
6	Diplegic/dyskinetic CP w/epilepsy	motor and communication
7	Diplegic/spastic CP w/trisomy 21	motor and intellectual
7	Diplegic/spastic CP w/hearing impairment	motor and hearing
10	Diplegic/dyskinetic CP w/epilepsy	motor and communication

As shown in Table 1, the age, type, and aetiology of the children with CP under the care of the parents interviewed are varied and diverse. Most of these children are nine years old (4 children), followed by six years old (3 children), seven years old (2), eight years old (2), ten years old (2), and ending our sample with one five-year-old child. The most common etiology found in the group of children was diplegic CP (10). Some of the children have visual impairments (1), hearing impairments (1), intellectual impairments (3), and communication impairments (4). All the children have motor impairments to varying degrees of complexity. Some of the associated comorbidities that the group of children have are epilepsy (4), visual impairment (1), hearing impairment (1), fragile X (1), trisomy 21 (1), and chromosome 2 alteration (1).

As shown in Figure 1, the content analysis of the compiled information, based on the answers to the interview questions with parents, allowed us to understand each of the children they represent. We built categories related to the information that emerged from the characterization of the children. This characterization was achieved inductively by organizing the compiled information, which was then divided into subcategories related to who the child is (89); how the child learns, the child's learning (46); the child's limitations (55); valuing support (people) (14); the child's setbacks or regression (9); the child's therapies (5); the child's needs (3); and the child's medication (2). The numbers in brackets next to each subcategory refer to the frequency with which these answers appear.

We also compiled information from categories related to the family and to the children's teachers. In the case of families, these categories refer to: strategies used daily by the children's parents (35); the parents' expectations or desires (24); lack of financial resources (10); the parents' conformity (8); and family history (6). For teachers, these categories include lack of teacher training or preparation (30); doubts about how to work with children with CP (3); and the importance of communication (9).

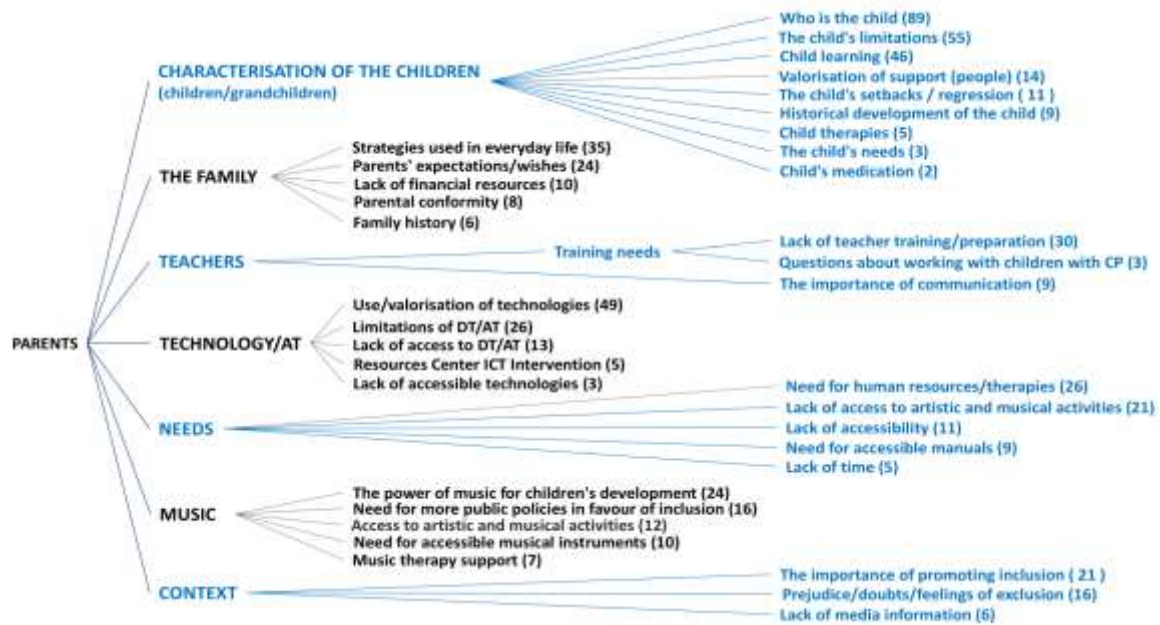


Figure 1. Categories obtained from the interviews with the Parents of children with CP

Regarding the responses relating to technologies, AT (Assistive Technology), and needs, these were compiled and organized into categories. In the case of technologies and AT, they refer to the use or appreciation of Technologies (49); limitations of technologies or AT (26); lack of access to technologies or AT (13); CRTIC intervention (5); and lack of creating accessible technologies (3). Regarding needs, we compiled the information into categories that refer to: need for human resources or therapies (26); lack of access to artistic and musical activities (21); lack of accessibility (11); need for accessible manuals (9); and lack of time (5).

Finally, the information that referred to contexts and music was compiled and organized into categories. In the context of the case, they refer to the importance of promoting inclusion (21) and addressing prejudice, doubts, or feelings of exclusion (16). Concerning music, we compiled the information into categories that refer to: the power of music for children's development (24); the need for more public policies in favor of inclusion (16); access to artistic and musical activities (12); the need for accessible musical instruments (10); and support for music therapy (7).

Below are some examples of responses (Table 2). To safeguard participants' anonymity, each parent has been assigned a number (e.g., P1, P2, P3, etc.).

Table 2. Some examples of answers to questions

PARENTS (P)	RESPONSES
P1	My daughter is a girl who doesn't speak, and doesn't walk on her own, but is starting to get around on her own with a walker
P3	My daughter is a good-natured, happy girl, above all stubborn and does only what she likes
P6	He's a quick learner, despite the spasms and all those things he has, he's a quick learner
P4	What do I do? I first interrelate and create a strategy to get my daughter's attention
P14	Since I started putting videos on, I've noticed that she's started to learn new words
P2	He uses the computer, he uses the PC Eye Mini and GRID3, which is a Programme on the computer, with the help of the PC Eye Mini he does everything
P7	My son uses digital technologies and Supports Products in his day-to-day life. Among the support products we have the walker (the one he uses the most), then GRID3, the computer, and the PC Eye Mini, but I didn't ask for these as support products, Telecom gave them to him
P12	What could improve her learning is more specific support for her, more individualised
P5	I think that inclusion, that real inclusion, has not yet happened. Inclusion in practice still doesn't happen
P10	He doesn't like being excluded. As his problem isn't cognitive, he realises what's happening and doesn't like being excluded

4.2 Analysis and Results of Music Professionals' Interviews

We interviewed 14 Music Professionals (MP) who work with children with SEN. The population interviewed comprised one teacher at a university, five teachers at specialized centers (such as CPA), four teachers at mainstream schools, and four teachers at AS.

Of the total 14 interviewees, only two, who work in AS, said they had never worked with children with SEN, and three of the four professionals who work in AS said they had never worked with children with CP. The remaining 11 interviewees said they had worked with children with CP at least once. Regarding the age of the 14 MP interviewed, most are over 50: seven are aged 50-59, and one is over 60. Two MP are between 30 and 39 years old, and four are between 40 and 49 years old.

Figure 2 shows the content analysis of MP interviews, revealing their educational and professional backgrounds. We organized information into categories about profession, training, and experience with children with SEN. Subcategories include: enjoyment of profession or rewarding results (7); influence of renowned authors or mentors (17); classical training, conservatory, or AS (11); and autonomous training path (5). Experience subcategories: existence of stigmas in society (12); questioning of practice (6); and initial shock or impact (6). Numbers in brackets indicate response frequency.

The technologies and AT categories organized the information into subcategories related to each.

The subcategories related to technologies include unfamiliarity with technologies for teaching music (14); using or adapting technologies or DMI (Digital Musical Instruments) (10); valuing technologies (8); using software or hardware for music (8); resistance to or depreciation of technologies (4). We then compiled the information into subcategories related to AT: adaptation or creation of non-conventional AT (8); appreciation or advantages of AT (4); use of AT (4); and CRTIC intervention (3).

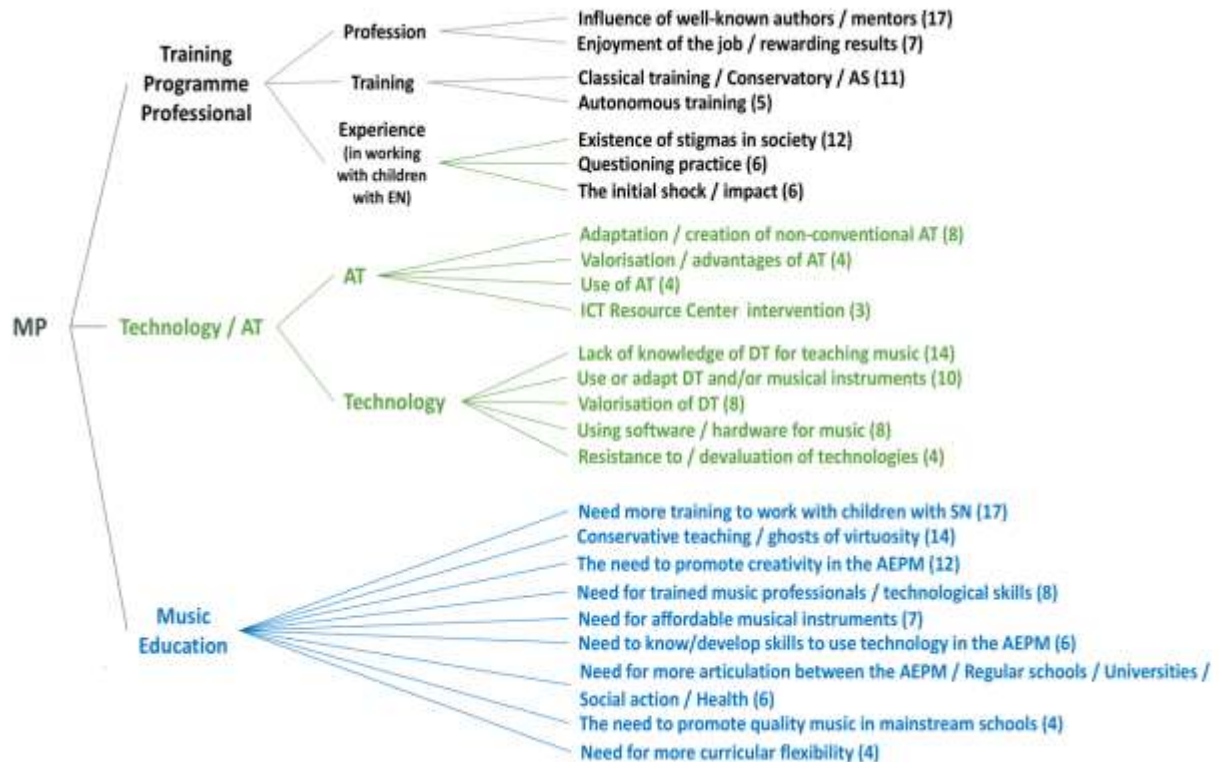


Figure 2. MP Information - Categories Training Paths, Technologies/AT and Music Teaching

The compiled information in the interviews with MP that referred to music teaching was organized into categories that address the need for more training to work with children with SEN (17); conservative teaching or ghosts of virtuosity (14); need to promote creativity in the AEPM - Arts Education Programmes of Music (12); need for prepared teachers with technological skills (8); need for accessible musical instruments (7); need to know or develop skills for using technology in the AEPM (6); need for more articulation between the AEPM, regular schools, universities, social work, and health (6); need to promote quality music in the regular school (4); and need for more curricular flexibility (4).

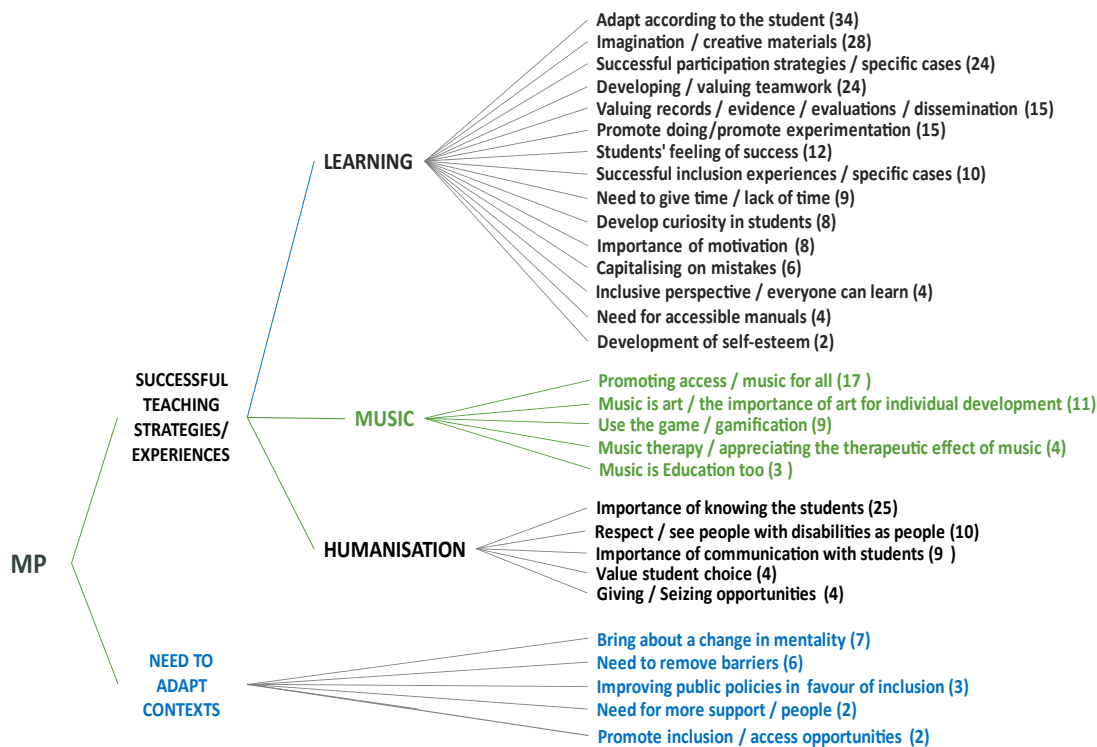


Figure 3. MP Information - Categories related to success strategies and experiences

Continuing with the categories from the MP interviews (see Table 2), Figure 3 shows the respondents' successful strategies and experiences, organized into three main categories:

I) **LEARNING:** Key strategies included adaptation according to the student (34); use of imagination or creative materials (28); reporting successful strategies for participation or specific cases (24); development or appreciation of teamwork (24).

II) **MUSIC:** Key strategies included promoting access—music for all (17); music as art—importance of art for individual development (11); and using games or gamification (9).

III) **HUMANIZATION:** Key strategies included the importance of knowing the students (25); respecting or seeing people with disabilities as people (10); and the importance of communicating with students (9).

Finally, we also compiled and organized into categories the information that referred to the need to adapt the context, categorizing the information into causing a change in mentalities (7); the need to eliminate barriers (6); improving public policies in favour of inclusion (3); the need for more support or people (2); and promoting inclusion or opportunities for access (2). Below are some examples of responses (see Table 3). To safeguard participants' anonymity, each MP has been assigned a number (e.g., MP1, MP2, MP3).

Table 3. Some examples of answers to questions

MUSICAL PROFESSIONAL	RESPONSES
MP2	The idea was—and is—to respond to users' needs by making music for them. We did this by answering the following questions: What kind of music do they like? What makes them feel good? What music do they enjoy listening to?
MP1	We must know that each child is different because we are all different. We must understand what they need and then build on it.
MP6	We must learn to build by avoiding just doing what the adult wants the child to respond to. Usually, it's just saying, "wanting to go to the toilet, wanting to eat, wanting I don't know what..." Those basic things, right? Sometimes people forget that children want to say other things related to their interests.
MP8	We must promote activities that spark interest, discovery, and enthusiasm, adapted to each person.
MP9	So, when you ask me what technology is, I don't answer you. I ask: Who is the person? What can they do and what can't they do? What would they like to do? What is within my reach? What can I do for them?
MP12	For example, if she has no movement in her hands, she can't move, she might even be quadriplegic, does she have movement in her eyes? I must design the instrument according to the person. If there's a person who loves piano sounds, for example, I might look up piano sounds on my computer. But if the person is interested in a blend of piano, bird, and percussion sounds, I can design both my software and my instrument.

Comparing the responses of parents and music professionals reveals a shared perception of a substantial gap between Portugal's inclusive education policy framework and what is currently feasible in music education settings, particularly in AS. Across both groups, four needs emerged consistently: stronger teacher preparation for working with children with CP; greater availability of accessible musical instruments and assistive technologies; more effective teamwork and coordination across education, health, and social support services; and public policies that translate rights into practical conditions. Parents emphasized the shortage of human resources in schools, which limits participation and basic daily support and reinforces the sense that inclusion depends on families' ongoing effort. Music professionals acknowledged limited methodological and technological knowledge, yet also described creative, student-centered adaptations focused on learners' interests, motivation, and agency. Overall, the findings suggest that sustainable inclusion in music education requires systemic investment in training, accessible tools, and staffing, alongside a proactive redesign of goals and practices that prioritize meaningful participation over conventional performance.

5. Discussion

This study reveals crucial insights into the challenges and opportunities for including children with CP in music education in Portugal. Interviews with parents and music professionals highlight converging concerns across four main areas: inadequate teacher training, lack of accessible musical instruments, insufficient teamwork structures, and gaps in public policy implementation.

These barriers, identified in several scientific studies, demonstrate an urgent need for intervention (Davanzo et al., 2023; Moreno et al., 2022; Moreno & Maia, 2022; Vinicius-Filho et al., 2026; Wangui, 2019).

Both parents and music professionals identified a significant need for specialized training to work with children with CP, aligning with findings from several authors. As shown in recent studies, music professionals reported lacking knowledge of appropriate methodologies and strategies, yet many demonstrated remarkable creativity in adapting their teaching approaches through improvised solutions (Mohamad, 2023; Wangui, 2019).

The lack of assistive technologies and adapted instruments emerged as a major barrier. Music professionals emphasized the importance of designing instruments according to individual abilities. This personalized approach aligns with research showing that playing musical instruments can improve sensorimotor coordination in children with CP - but requires adequate technological support (Davanzo et al., 2023; Lima, 2024; Moreno et al., 2022; Moreno & Maia, 2022; Vinicius-Filho et al., 2026).

Parents particularly emphasized the shortage of support staff, including operational assistants and therapists. This deficit affects not only educational participation but also basic needs such as eating and using the toilet. The constant effort parents must exert to secure necessary services reveals a system where legal rights do not automatically translate into practical support (Mambwerere & Dube, 2024; Mohamad, 2023).

The findings highlight a disconnection between Portugal's progressive inclusion legislation and its practical implementation in music education. While laws promote inclusive education, in practice, there are inadequate resources, insufficient training, and limited access to assistive technologies.

6. Methodological Reflection

The research conducted on the inclusion of children with CP in Arts Education Programmes of Music (AEPM) is grounded in a critical interpretative epistemological framework, which recognises that phenomena such as participation, barriers or pedagogical strategies are constructed within the experiences and discourses of the actors involved.

This perspective guided the decision to use in-depth interviews, understood as a privileged means of accessing the meanings attributed by parents and teachers to inclusion practices. The choice of two groups of participants — 14 parents and 14 music teachers — stemmed from the need to capture the complexity of the phenomenon from multiple viewpoints, enabling the identification of convergences, tensions and areas of ambiguity between family expectations, pedagogical practices and institutional frameworks.

The decision to use content analysis, supported by webQDA, aimed to ensure a systematic and transparent process of organising and interpreting the data. Following the full transcription of the interviews, the team began a familiarisation period, followed by open coding, in which descriptive codes were assigned to text segments without imposing pre-defined categories.

From this initial coding, recurring themes emerged — structural barriers, pedagogical limitations, facilitating strategies, discrepancies between policy and practice — which were progressively grouped into more abstract categories and subcategories. The analytical process was iterative: categories were reviewed, renamed or subdivided as new readings and team discussions revealed nuances or contradictions in the data. The use of analytical memos allowed us to record decisions, doubts and justifications, contributing to interpretative consistency and the traceability of the analytical process.

Reflexivity played a central role in all phases of the study. Some researchers' proximity to the fields of music education and inclusive education constituted both an advantage—due to their in-depth understanding of the context—and a risk, due to the possibility of taking practices for granted or assuming meanings. This awareness led the team to adopt mitigation strategies, such as collaborative coding, the systematic discussion of interpretative discrepancies, and attention to power asymmetries present in the interviews. Parents of children with CP may feel vulnerable when reporting difficulties experienced within the education system, whilst teachers may fear that their practices will be evaluated. Recognising these dynamics was essential to creating an atmosphere of trust and to interpreting the discourses critically, avoiding simplistic or moralising interpretations.

The study also faced limitations inherent to its methodological design. Collaboration with a specialist association and a resource centre (CRTIC), whilst fundamental for accessing participants, may have resulted in a sample more attuned to inclusion than the average family or teacher. Furthermore, the research was based exclusively on narrated, rather than observed, practices, which implies acknowledging that the discourses collected reflect situated perceptions, justifications and positions, and not necessarily the entirety of everyday practices. These limitations do not diminish the value of the study, but reinforce the importance of a detailed description of the context and an analysis that prioritises transferability over generalisation.

From a methodological perspective, this study offers relevant insights for other contexts of qualitative research. The triangulation of perspectives proved particularly fruitful for understanding complex phenomena such as inclusion, revealing that the coordination between families, teachers and specialist services is both a challenge and a source of innovation.

The reflective use of qualitative analysis software demonstrated that digital tools could support, but not replace, interpretative work, requiring conscious decisions regarding categories, thematic boundaries and internal coherence.

Finally, the experience reinforces the need to integrate reflexivity as a structuring axis of the research — from the study design to the discussion of results — clarifying the researchers' position, the implications of that position, and the limits of the interpretations produced.

This methodological reflection thus seeks to draw a clear distinction between data description, critical analysis and meta-methodological contribution, in line with the guidelines of New Trends in Qualitative Research.

By making explicit the assumptions, decisions, dilemmas and lessons learnt, the study not only sheds light on inclusion in music education but also contributes to the advancement of qualitative research practices in contexts of vulnerability and diversity.

7. Final Considerations

This study explored the perspectives of Parents and MP regarding the inclusion of children with CP in music education in Portugal. The findings reveal a complex landscape where progressive legislative frameworks coexist with significant practical barriers.

Four critical challenges emerged consistently across both groups: inadequate teacher training for working with children with CP, insufficient access to musical instruments and AT, insufficient human resources and support structures, and gaps between policy intentions and implementation.

These barriers prevent many children with CP from fully accessing the benefits of music education, including enhanced sensorimotor coordination, communication skills, and social participation.

Despite these systemic challenges, the study also highlights promising practices. MP demonstrated remarkable creativity in adapting their approaches, emphasizing the importance of understanding each child's individual capabilities, interests, and needs. This student-centered philosophy—asking "Who is the child? What can they do and what would they like to do?"—represents a valuable foundation for inclusive practice.

The study explores the musical inclusion of children with cerebral palsy in depth, offering significant qualitative insights by revealing their lived experiences. The researchers adopted a reflective approach to coding and interpretative validation, negotiating meanings, comparing interpretations and building credible analytical consensus. The WebQDA software proved to be an excellent methodological tool for supporting content analysis. It simplified data categorization and enabled us to explore relationships within the data. Through this approach, we fully achieved our main objective of characterizing the child. The content analysis of interview data revealed that children with CP are like other children: they enjoy play, sometimes resist school activities, and have specific preferences. They are children!

Moving forward, several interventions are necessary to bridge the gap between inclusion policy and practice:

- i) Comprehensive professional development programs for music teachers on inclusive methodologies and strategies for working with children with CP;
- ii) Investment in ADMI and AT that can be customized to individual capabilities;
- iii) Increased allocation of support personnel, including operational assistants and specialized therapists;
- iv) Strengthened interdisciplinary collaboration between educators, therapists, families, and technology specialists;

v) Policy reforms that translate legislative commitments into adequately resourced implementation.

Ultimately, achieving truly inclusive music education requires viewing children with CP not through the lens of deficit, but as individuals with unique capabilities, interests, and rights to participate fully in artistic and educational experiences. Music is a universal language and an essential component of human development—ensuring access for all children is both an educational imperative and a matter of social justice.

Future research should explore the effectiveness of specific adaptive technologies and pedagogical approaches, as well as longitudinal studies examining the impact of inclusive music education on the development and quality of life of children with CP.

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