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# Music as a Teaching Method in the Development of Teaching Competence among Pre-service Early Childhood Teachers

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**Abstract:** This study examines how music can function as a pedagogical method in preservice early childhood teacher education, rather than as an isolated subject. Drawing on classroom observations, teaching materials, and reflective writings, the study explores how preservice teachers integrated music into their teaching practice.

**The findings** indicate that music supported teaching competence in several practical ways. First, music helped preservice teachers organize teaching activities more coherently, particularly in managing transitions and classroom routines. Second, music facilitated teacher–child interaction by supporting participation and shared engagement in classroom activities. Third, reflective analysis suggests that the use of music encouraged preservice teachers to think more carefully about the relationship between teaching decisions and children’s learning responses.

**From an educational** understanding perspective, the study suggests that music can serve as a mediating means through which preservice teachers connect pedagogical intentions with classroom practice. The findings highlight the value of integrating music as a method of teaching within early childhood teacher education programs.

**Keywords:** music as a teaching method; teaching competence; pre-service teachers; early childhood education

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## 1. Introduction

Music is a familiar element in early childhood education and is widely used in daily routines, group activities, and classroom transitions. Despite its frequent use, music is often positioned as an activity in its own right rather than as a pedagogical means that supports teaching processes. In many teacher education programs, music-related coursework focuses primarily on performance skills and repertoire learning, with limited attention given to how musical elements can function methodologically in classroom instruction.

As a result, pre-service teachers may incorporate music into their teaching without a clear understanding of how it can assist in organizing instruction, guiding interaction, or responding to children’s learning behaviors. This situation reflects a broader challenge in teacher education: the need to explore how embodied and non-verbal resources contribute to the development of teaching competence<sup>[1]</sup>. Against this background, the present study investigates the role of music as a

teaching method in the professional learning of pre-service early childhood teachers.

To clarify the organization of the article, the next section outlines the theoretical background that informs the study, followed by a description of the research design and analytical approach. The findings are then presented, and the article concludes with a discussion of implications for early childhood teacher education.

Music occupies a long-standing position in early childhood education, yet its pedagogical value is still underestimated in many teacher preparation programs. While music is frequently incorporated into classroom routines, transitions, and group activities, its use is often intuitive rather than theoretically grounded. Pre-service teachers often rely on songs and rhythmic cues simply because they feel familiar, without fully understanding how such cues shape instructional flow, influence children's participation, or contribute to classroom management.

In contemporary education theory, teaching is viewed as an embodied and multimodal process in which gestures, rhythms, tone, and movement convey instructional meaning. Music, as a structured and expressive modality, provides pre-service teachers with tools to coordinate timing, guide attention, and facilitate classroom interaction. These functions closely match essential components of teaching competence, including lesson structuring, classroom management, and responsive engagement.

## **2. Theoretical framework**

In this study, teaching competence is understood as a practice-oriented and context-sensitive construct that develops through ongoing engagement with planning, action, reflection, and adaptation<sup>[2]</sup>. From a constructivist perspective, competence is not transmitted directly but gradually formed as teachers interact with instructional situations and make sense of their experiences. This section brings together key perspectives from music education and educational philosophy that inform the present study. Rather than offering an exhaustive review, it focuses on concepts that are directly relevant to understanding music as a pedagogical method in teacher education.

The concept of pedagogical content knowledge highlights the integration of subject matter understanding with instructional strategies. When viewed through this lens, music can be understood not merely as content to be taught but as a pedagogical resource that supports instructional decision-making. Elements such as rhythm, tempo, and expressive quality provide practical cues for structuring activities, regulating interaction, and interpreting children's responses.

Reflective practice further emphasizes the importance of observable classroom evidence in professional learning<sup>[3]</sup>. Music-based activities often generate visible and embodied responses from children, making it easier for pre-service teachers to reflect on their instructional choices. Together, these perspectives frame music as a mediating resource that supports the development of teaching competence in early childhood settings.

Building on these foundations, it is also important to consider how multimodal learning theories contribute to understanding music as a pedagogical method. Multimodal perspectives argue that meaning is constructed through the integration of verbal, visual, auditory, and kinesthetic modes of communication. Music naturally engages multiple modalities simultaneously—rhythm invites movement, melody stimulates memory, and lyrical patterns support language development. For pre-service teachers, this multimodality broadens their instructional repertoire and enables them to design learning experiences that align with children's diverse ways of making meaning.

Sociocultural theory also provides insight into how music functions within shared learning environments. Vygotskian perspectives emphasize that learning occurs through mediated interaction, where tools and signs support the co-construction of understanding. In early childhood classrooms, music becomes one such mediating tool, shaping the social atmosphere, guiding collective behavior, and facilitating cooperation among children. When pre-service teachers observe how children respond together to musical cues, they gain a deeper understanding of how collective participation contributes to learning processes.

Additionally, theories of embodied cognition highlight the role of the body in shaping thought and action. Young children often express themselves physically—through movement, gesture, and rhythm—which makes music particularly

aligned with their natural modes of engagement. For pre-service teachers, using music therefore helps bridge the gap between abstract instructional goals and children's concrete embodied experiences. This alignment strengthens their ability to design developmentally appropriate activities that support cognitive, emotional, and social growth.

Finally, integrating these theoretical perspectives helps situate music as more than an enrichment activity; it becomes an essential pedagogical resource that expands teachers' capacity for effective instruction. By understanding music through constructivist, sociocultural, multimodal, and embodied lenses, pre-service teachers develop a more holistic conception of teaching competence and gain theoretical grounding for their practical use of music in early childhood education.

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### **3. Methodology**

This study employed a qualitative-dominant mixed-methods research design, with qualitative data forming the primary basis for analysis. The integration of qualitative and quantitative data allowed for a comprehensive examination of instructional practices and reflective understanding. The following paragraphs describe the research design, participants, data sources, and analytical procedures used in the study.

The participants were 40 pre-service early childhood teachers enrolled in a teacher education program at a normal university. All participants had completed foundational music courses but reported limited experience using music as a teaching method in classroom instruction<sup>[4]</sup>.

The intervention was implemented over a six-week period and focused on practical classroom applications of musical elements. Training activities included using rhythm to structure lesson sequences, employing musical cues to support classroom transitions, and adjusting tempo and expressive qualities in response to children's engagement.

Data were collected through lesson plan analysis, classroom observations, reflective journals, and semi-structured interviews conducted before and after the intervention.

To ensure methodological rigor, the study followed a structured process of data triangulation that integrated multiple forms of evidence. Lesson plans were examined to understand how participants conceptualized the use of musical elements in instructional design. These documents provided insight into pre-service teachers' planning decisions, including their choice of musical cues, sequencing strategies, and anticipated classroom interactions. Classroom observations supplemented this analysis by capturing how these planned strategies unfolded in practice. Researchers focused particularly on moments where rhythm, tempo, or musical prompts were used to guide children's behavior or scaffold learning activities.

Reflective journals served as an important qualitative component, offering direct insight into participants' evolving pedagogical thinking. In these journals, teachers articulated their perceptions of what worked, what challenges arose, and how children responded to musical strategies. These written reflections enabled the identification of patterns related to professional learning, such as increasing awareness of instructional pacing or improved sensitivity to children's engagement levels.

Semi-structured interviews were conducted both before and after the intervention to assess changes in participants' self-perceived competence in using music as a teaching method. Pre-intervention interviews explored teachers' prior experiences and beliefs about music in early childhood classrooms, while post-intervention interviews examined shifts in their understanding and confidence. The paired interview data provided meaningful contrast and highlighted participants' developmental trajectories.

For data analysis, thematic analysis was employed, following a systematic coding process that involved open coding, category development, and theme refinement. Quantitative data, such as frequency counts of musical strategy usage, were incorporated to complement findings and strengthen interpretations. Ethical considerations were maintained throughout the study, including informed consent, anonymity, and secure storage of all collected materials.

Overall, this methodological design enabled a comprehensive and credible examination of how music-based

instructional strategies contribute to the development of teaching competence among pre-service early childhood teachers.

## **4. Findings**

### **4.1. Musical structuring of teaching practices**

Participants increasingly employed musical elements such as rhythm, tempo, and repetition to structure lesson sequences<sup>[5]</sup>. This was most evident during daily classroom routines, including morning greetings, storytelling sessions, and transitions between learning activities. Musical cues were used to signal beginnings and endings of activities, supporting temporal organization and sustaining children's engagement throughout the lesson flow.

### **4.2. Music as a medium for classroom interaction**

Music functioned as an interactive medium that facilitated teacher-child communication. Such practices were frequently observed in lesson openings and transition moments, where musical prompts supported collective attention. Participants demonstrated improved responsiveness by adjusting musical tempo and dynamics in relation to children's reactions, indicating growing sensitivity to classroom interaction patterns.

### **4.3. Reflective teaching through musical practice**

Reflective capacity was enhanced through music-based teaching experiences. This was particularly evident in participants' post-lesson reflections, where they reconsidered lesson pacing and instructional choices after observing children's engagement during musical activities. These reflections suggest that music supported ongoing pedagogical reflection grounded in classroom experience.

### **4.4. Adaptive teaching and pedagogical flexibility**

The findings revealed that music-based instruction encouraged adaptive teaching strategies. In response to situational demands, participants modified musical elements such as tempo, volume, or activity structure, enabling more flexible and context-sensitive teaching practices. This adaptive use of music reflects teachers' increasing attentiveness to children's immediate learning needs.

### **4.5. Integrated development of teaching competence**

Across the data sources, teaching competence was reflected not in isolated skills but in participants' increasingly coordinated use of planning, interaction, and reflection. Music-based pedagogy was associated with participants' increasingly coordinated use of these dimensions in classroom practice, supporting the integration of teaching competence as a coherent and practice-oriented process.

Additional patterns emerged across the dataset that further illuminate how music contributed to the development of teaching competence. One notable theme was the increased confidence participants displayed in managing group dynamics. As they incorporated rhythmic patterns and predictable musical cues, teachers reported that children responded more quickly and smoothly to instructions. This reduced the cognitive load associated with classroom management and allowed pre-service teachers to focus more on instructional quality rather than behavior control.

Another important pattern involved the emergence of more intentional pedagogical reasoning. During observations and interviews, participants described how music prompted them to think more explicitly about sequencing, timing, and children's emotional states. For example, several teachers noted that adjusting tempo during transitions helped maintain a calmer atmosphere, while energetic rhythms stimulated participation during learning activities. These instructional adjustments demonstrated a growing ability to align pedagogical decisions with children's developmental needs.

Furthermore, the use of music appeared to support differentiated instruction. Participants became more aware of individual variations in children's engagement and used musical cues to scaffold participation for children who needed

additional support. For instance, slowing down rhythmic prompts helped children who required more time to process instructions, while repetitive melodic patterns supported those who benefited from predictable structures.

Finally, the integration of music encouraged collaborative learning among children. Observations showed that musical activities promoted shared attention, synchronized movement, and cooperative participation, all of which supported social development. Pre-service teachers recognized these collaborative moments as opportunities to reinforce peer interaction and strengthen classroom community.

Overall, these extended findings highlight that the impact of music-based pedagogy extends beyond technical skill development, shaping broader dimensions of teaching competence, including confidence, reasoning, adaptability, and classroom community building.

## **5. Conclusion**

Building on the empirical findings presented above, this study demonstrates that music can function as an effective pedagogical method in the development of teaching competence among pre-service early childhood teachers. By integrating musical elements into lesson design, classroom organization, reflection, and adaptation, participants developed more structured and responsive teaching practices.

The study highlights the value of incorporating music-based methodological training into teacher education programs. Future research may further examine the long-term effects of such approaches and explore their application across diverse educational contexts.

Beyond the primary findings, the study provides deeper insight into the broader implications of using music as a pedagogical tool in early childhood teacher education. One significant implication is that music supports the formation of professional identity among pre-service teachers. As they gained confidence in managing classroom interactions through musical strategies, many participants reported feeling more capable and intentional in their role as educators. This shift suggests that music-based instruction can contribute to the early stages of teacher professionalization.

Moreover, the study underscores the potential of music to foster reflective habits that extend beyond specific lesson contexts. Participants increasingly demonstrated the ability to evaluate their instructional decisions, not only when using music but also in other teaching situations. This transfer of reflective competence reinforces the idea that music can serve as an anchor through which teachers develop larger habits of inquiry and pedagogical awareness.

Another important conclusion is that music promotes differentiated and inclusive teaching practices. Music-based cues and rhythmic structures supported learners with varying levels of developmental readiness, offering multiple pathways for engagement. This aligns with the broader goals of inclusive education, suggesting that musical strategies may help pre-service teachers better address diverse learning needs in early childhood classrooms.

Finally, the results highlight the need for teacher education programs to integrate systematic training on music as a methodological tool rather than treating it as an optional enrichment activity. Providing structured opportunities for pre-service teachers to practice, analyze, and reflect on music-based pedagogy can significantly strengthen their overall teaching competence. As education systems continue to emphasize holistic development and multimodal learning, music stands out as a powerful and versatile resource that can enhance the quality of early childhood instruction.

## **Disclosure statement**

The author declares no conflict of interest.

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