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Teacher self-efficacy in music teaching: an exploratory study in Chile

Karla Valdebenito, Alejandro Almonacid-Fierro
Faculty of Educational Sciences, Universidad Católica del Maule, Talca, Chile

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ABSTRACT

Teaching music in primary education is frequently assigned to generalist teachers despite their limited musical training, which raises important challenges regarding educational quality. This study investigates teacher self-efficacy in music teaching among generalist primary school teachers in Chile, a context that remains underexplored in international research. This study employed a mixed-methods sequential explanatory design. In the quantitative phase, data were collected from 61 generalist teachers using an adapted version of the self-efficacy scale for music teaching. Descriptive statistical analyses were conducted to identify the levels and dimensions of the teachers' self-efficacy. In the qualitative phase, semi-structured interviews were conducted with eight teachers selected purposively based on high and low self-efficacy scores, and the data were analyzed using content analysis. The results indicate that a high proportion of teachers report low self-efficacy, particularly in instrumental performance and singing, which are closely associated with limited initial training and insufficient institutional support for these subjects. Conversely, teachers with higher self-efficacy demonstrate adaptive strategies, innovation, and active help-seeking behavior. The findings highlight the need to strengthen musical competencies in initial teacher education programmers and enhance institutional support, contributing to improved music teaching practices and informing educational policies in similar contexts.

Corresponding Author:

Karla Valdebenito
Faculty of Educational Sciences, Universidad Católica del Maule
Avenida San Miguel 3605, Talca, Chile
Email: kvaldebenitog@gmail.com

1. INTRODUCTION

There is a global debate regarding who should teach music in primary schools. On the one hand, there are specialist music teachers, and on the other, there are generalist primary school teachers responsible for teaching all subjects in the classroom, as is the case in countries such as Chile, Australia, England, Norway, Turkey, and Mexico [1]–[6]. According to the literature, generalist primary school teachers face the responsibility of teaching music and often have very low self-confidence in their ability to do so effectively, resulting in teaching that falls short of their competencies [7]. This perception is related to the context of self-efficacy, which, according to the literature, is defined as an individual's ability to believe in themselves while performing a given task [2].

In addition, the literature emphasizes that if these teachers possess self-confidence, along with their prior experiences and skills, they can teach music and, consequently, achieve the desired optimal results for both themselves and their students [8]–[10]. Within the same Chilean context, generalist teachers are responsible for teaching all primary school subjects to students approximately 6 to 10 years of age. This

responsibility includes music, which has been mandatory since the implementation of Exempt Decree No. 2960 by the Ministry of Education in 2013 [11]. From an international perspective, countries such as Germany and China place considerable importance on music as a vital social and cultural element, a view that is also reflected in higher-education contexts, where music education is linked to cultural identity and holistic student development [12]–[14]. Conversely, other countries, such as Chile, perceive music education as a complementary aspect that enhances students' holistic development [15]. In this context, music is used to enrich the school curriculum by offering additional, elective, and exploratory subjects [16], [17]. In Chilean schools, most class time is dedicated to academic subjects, primarily mathematics, language arts, science, and history. Conversely, some studies refer to subjects such as music, physical education, arts, and technology as "subordinate" subjects [18].

There is currently an international debate regarding the ideal teacher to teach music in primary schools: a specialist or a generalist? [19], [20]. These differences are partly explained by the teaching models adopted in countries such as Germany, Finland, Spain, and China, where music education is compulsory from the age of six and is typically taught by specialist teachers. In contrast, in countries such as Australia, Chile, and Mexico, generalist primary school teachers are responsible for teaching all subjects within the school curriculum, including music, as documented by Vries [21]. Therefore, it is essential to consider international research addressing the specific conditions that shape generalist primary school teachers' music instruction in Australia. This body of research indicates that teachers often report low confidence in their ability to carry out music-related pedagogical tasks, a perception that is largely associated with their initial teacher education and the limited development of musical competencies, strategies, skills, and pedagogical knowledge for teaching music [21]. Numerous studies have revealed that generalist primary school teachers in various countries tend to have limited musical training during their academic preparation, resulting in relatively low musical proficiency levels. An example of this is the diverse and varied research [22]–[27] that has examined the competencies of generalist primary school teachers in delivering music education.

Previous research has examined the musical backgrounds and perceptions of primary generalist teachers, highlighting the diversity of their prior musical experiences and their self-perceptions regarding music teaching [28]. These findings suggest that recognizing and building upon teachers' existing musical experiences can contribute to strengthening teacher self-efficacy, which is a key factor in improving the quality of music education delivered by primary school generalist teachers. Teacher self-efficacy beliefs can influence not only music teaching and student performance but also the selection of actions to take when faced with a problem and the management of its emotional implications [21], [29], [30]. These beliefs can affect teachers' thinking, feelings, motivation, and actions [31], [32]. However, in both cases, teachers sought different ways to teach music despite the challenges they faced in their educational institutions, such as the low priority given to the discipline within the school curriculum and the limited musical training, they received during their teacher education. Consequently, their self-efficacy is affected by their professional and personal experiences [33]. Therefore, improving the self-efficacy of music teachers is vital for providing high-quality music education in schools. This concept extends beyond teacher recruitment and retention to include job satisfaction and classroom performance.

Despite the growing body of international research on teacher self-efficacy in music education, most studies have focused on measuring self-efficacy levels or identifying training deficiencies among generalist music education teachers. The present study extends this literature by adopting a mixed-methods sequential design that connects quantitative self-efficacy data with qualitative insights into teachers' experiences of teaching evolution theory. Rather than limiting the analysis to self-efficacy scores, this study explored how self-efficacy in music teaching is constructed through teachers' professional trajectories, perceived competencies, and contextual conditions. The study identifies both constraining factors and adaptive strategies, such as innovation and active help-seeking, that generalist teachers employ when facing limited musical training and institutional support in teaching music. This integrative approach offers a nuanced understanding of teacher self-efficacy in music teaching and contributes empirically and analytically to research on teacher development in compulsory education.

The main objective of this study was to evaluate generalist primary school teachers' self-efficacy in music teaching in relation to their musical competencies to understand their perceptions of classroom practice. Specifically, this study aims to: i) characterize the levels of teacher self-efficacy in music teaching among generalist primary school teachers; ii) describe the musical competencies perceived as more developed in relation to music teaching; and iii) interpret how teacher self-efficacy is constructed through teachers' discourse on their experiences, training, and musical competencies. Based on these objectives, this study was guided by the following research questions:

- What levels of self-efficacy do generalist primary school teachers in Chile report in relation to music teaching?
- Which musical competencies do teachers perceive to be more developed in the context of music teaching?

- How do generalist teachers construct their perceptions of self-efficacy in music teaching based on their professional experience and training?

2. LITERATURE REVIEW

2.1. Music education in primary school

Gardner [34] emphasized the importance of musical intelligence, considering it equal to logical-mathematical, linguistic, spatial, bodily kinesthetic, interpersonal, and intrapersonal intelligences. Similarly, Dibben [35] noted that primary education literature often considers music to be a form of knowledge. According to Esimone [36], musical skills such as singing in tune or performing rhythms are fundamental skills that everyone has the right to learn, just as walking and talking. Likewise, Welch *et al.* [37] affirms that music must be an essential element in students' education and should be taught by competent teachers to provide a comprehensive learning experience. According to Vila [38], early exposure to music is necessary for learning. However, starting music education at a young age is important not only for musical education but also for children's overall development. According to Pitt [39], the effects of music on child development can be analyzed in three aspects: language, emotional and social, and physical and psychomotor. While singing, children develop the ability to speak correctly and eloquently. While making music alone or with friends, children achieve personal satisfaction, develop emotionally, acquire habits, and socialize with others. Various musical activities also positively affect students' physical and psychomotor development [40]. Music teachers face many challenges in ensuring that all students have access to quality music education during their primary-school years. The benefits of a solid foundation in music education are well-known and have been confirmed by research. More generally, students with high levels of involvement in music outperform students with little musical background in virtually every aspect (social, psychological, cognitive, and emotional), and involvement in music makes a more significant difference for low-income students than for their high-income peers [41].

The literature has shown that music education is crucial for students' holistic development, as music is considered a fundamental form of knowledge comparable to other intelligences, such as logical-mathematical and linguistic intelligence. Therefore, integrating music education at an early age not only promotes musical learning but also contributes to children's emotional, social, communicative, physical, and psychomotor development. Participating in musical activities helps develop critical thinking skills and competencies, highlighting the importance of incorporating music into basic education to provide comprehensive learning experiences.

2.2. Competency-based music education

Regarding musical competencies, the international literature agrees on recommending performance and vocal training as essential musical skills in the primary school classroom [42]. International studies have demonstrated that generalist primary school teachers are not prepared to use music in their classes, as they consider their university training to be limited and insufficient [2], [19]. As a result, generalist primary school teachers feel incapable of teaching music according to their content, skills, and competencies, and they feel insecure when teaching the curriculum. A set of competencies that all generalist primary school teachers should develop includes musical competencies [1]. Many people believe that they lack a sense of rhythm or musical talent, implying that musical talent is an innate ability that some possess and others do not. Ehrlin and Wallerstedt [43] found that most generalist primary school teachers believe that musical and artistic abilities are innate and can be improved to some extent under certain conditions. However, according to Agrawal *et al.* [44], musicality is associated with broader perceptions of intelligence, emotional sensitivity, and social value, suggesting that musical abilities are not fixed categories that divide individuals into "musical" or "non-musical," groups, but rather socially interpreted characteristics that influence how people perceive and relate to others.

These studies consistently reveal a key finding: insufficient initial music training negatively impacts teachers' self-efficacy, affecting their ability to teach the subject effectively. Russell-Bowie [45] investigated the challenges faced by generalist teachers in primary schools in Australia, South Africa, Namibia, the United States (Illinois), and Ireland. A total of 936 student teachers participated. The findings highlighted that a lack of musical experience, low priority given to music education, time constraints, and insufficient resources are the main obstacles to teaching music. This reflects a structural problem that transcends borders: educational policies tend to prioritize subjects considered "productive" in economic terms, relegating subjects like music to a secondary position [46]. This study underscores the need for greater support and resources to improve music education in these countries. In this context, Hallam and MacDonald [47] concluded that many primary school teachers feel that they have not acquired the necessary skills to teach music. For example,

Hargreaves *et al.* [48] noted that teaching music generated the highest level of stress among British teachers, mainly due to a lack of confidence in their ability to teach music.

Research by Begic *et al.* [49] in Croatia, which included surveys and interviews with experts, underscored the critical need for more practical training, especially in instrumental performance and singing. This confirms the relevance of practical experiences in teacher training as a means of strengthening self-efficacy, as proposed by Bandura [50] in his theory of learning through direct experience. These researchers emphasized that the subject "methods of music teaching" is of paramount importance in the training of future teachers. Furthermore, they proposed a revision of the subject's content, suggesting an increase in practical classes and a reduction in the emphasis on theoretical classes. They also recommended including musical aptitude tests in entrance examinations for teacher training programs.

Regarding musical competencies, the international literature agrees on recommending performance and vocal work as essential musical competencies in the primary school classroom [42]. From Bandura's perspective [50], teacher self-efficacy in these competencies is influenced not only by initial training but also by access to resources and institutional support. Consequently, teachers must acquire competencies related to music education to become aware of the variety of possibilities that music offers. This would reduce the limited understanding of the nature of music and the deficiencies in training procedures and skills that primary school teachers have in this area. International studies have demonstrated that generalist primary school teachers are not prepared to use music in their classes, as they consider their university training to be scarce and insufficient [2], [19]. As a result of the aforementioned factors, generalist primary school teachers feel incapable of teaching music according to their content, skills, and competencies, and feel insecure when teaching the curriculum. In this sense, teachers' negative self-efficacy beliefs in music could be the result of several internal and external factors [33]. The more competent the teacher, the greater the students' learning and retention. Furthermore, considering its contribution to students' holistic development, music should be an integral part of education in schools, where children typically spend more time than they do at home with their parents. Early childhood is characterized by rapid development, and exposure to music can enhance this process. The development of basic musical skills should take place in early childhood, as children's experiences with music between the ages of 3 and 5 have a significant impact on their later musical abilities [51]. Similarly, the professional competencies of primary school teachers are defined by their ability to identify and foster the development of children's musical potential and unique talents. The literature also highlights that primary school teachers can either foster or inhibit children's development by employing appropriate or inappropriate teaching practices [52]. Therefore, teachers need to develop a variety of competencies in different areas, and higher education institutions should support students in basic education in developing a broad range of competencies.

In conclusion, primary teacher training must be carefully designed to address musical competencies holistically. The key question is how to improve this training: through an emphasis on programs that develop practical skills or through greater integration of music into the academic curriculum. Furthermore, the discussion focuses on the use of technological advancements to enrich music teaching and how these aspects can be considered in educational policy-making. The quality of music education in primary schools has a lasting impact on students' cognitive, emotional, and cultural development and is a valuable component of a well-rounded education that deserves ongoing and thoughtful attention.

2.3. Teacher self-efficacy

The term "self-efficacy" refers to an individual's belief in their competence to achieve a specific goal. This concept is closely related to self-confidence, which is the belief in one's ability to succeed in a given situation. Developing self-efficacy is a fundamental aspect of positive psychology because it can increase productivity and overall well-being [53]. Within Bandura [50] social cognitive theory, self-efficacy is essential in personality development, as this theory emphasizes the importance of learning through observation, social experiences, and determinism in the formation of a person's beliefs and behaviors. According to Bandura [50], the self-system, which is a set of attitudes, skills, and cognitive abilities, is crucial for perceiving situations and responding appropriately. Therefore, self-efficacy is vital within this system. Therefore, self-efficacy is the belief in one's ability to succeed in certain circumstances [54]. Bandura [50] pointed out that these beliefs reflect how people think, behave, and feel.

Similarly, teacher self-efficacy, a concept proposed by Bandura [50], refers to a teacher's belief in their own abilities to carry out specific tasks in the educational context and effectively influence student learning and classroom processes [55]. This essential component of teacher motivation and performance encompasses various aspects of the school environment. It includes teachers' confidence in their pedagogical skills, ability to motivate themselves and persist in the face of challenges, management of stress and pressure inherent in teaching, and adaptability and resilience in the face of changing situations. In the context of music education, these beliefs are particularly critical, as teachers face challenges related to their limited initial training and the scarcity of resources in many Chilean schools. This directly affects their ability to plan and

execute effective musical activities in the future. Teacher self-efficacy also influences student learning, as teachers with strong self-efficacy tend to create a more effective classroom environment. Furthermore, this perception of self-efficacy is linked to the constant pursuit of professional development, and its impact extends to the teacher's interaction with colleagues and parents [56]. Fostering teacher self-efficacy is a crucial component of teacher well-being and performance, contributing significantly to continuous improvement in the educational field.

Therefore, improving the self-efficacy of music teachers is vital for providing high-quality music education in schools. This concept extends beyond teacher recruitment and retention to include job satisfaction and classroom performance. Despite its importance, more research is needed, especially among generalist teachers and from a Latin American perspective, since teachers' perceptions of their musical abilities significantly impact their professional identity, which can limit their self-efficacy.

3. METHOD

3.1. Research design

This study was developed from the epistemological perspective of mixed methods research, utilizing the dialectical representation of Creswell and Clark [57], who emphasized the potential of multiple paradigms to provide diverse insights into the social world. The study employs a post-positivist worldview for the quantitative phase, which transforms into a constructivist perspective for the qualitative phase to gain a deeper understanding of the results.

Convenience and snowball sampling techniques were employed to obtain responses from teachers using the self-efficacy scale. The sample consisted of 61 generalist teachers from municipal, private, and subsidized schools. As mentioned previously, a convenience and snowball sampling method [58] was used to reach these teachers based on ease of access, availability to participate, and their cooperation in forwarding the email and meeting the study's deadline. Teachers were selected for interviews based on their scores on the self-efficacy scale, which categorizes them as having high or low self-efficacy according to the survey designed by Özmenteş [59].

The classification is based on the scores obtained on this scale, where teachers with high self-efficacy are those who obtained high scores on the self-efficacy scale (69 points and above), indicating strong confidence in their skills and competencies in teaching music. Conversely, teachers with low self-efficacy are those who obtained low scores on the self-efficacy scale (less than 68 points), indicating less confidence in their skills and competencies in teaching music. Consequently, the sample for this study was a non-probabilistic and purposive selection of volunteers [60] until the point of saturation was reached (eight teachers in total; four per self-efficacy level: high or low). Table 1 presents the main characteristics of the study sample, including academic background, degree or specialization, music training during initial teacher education, and institution type.

Table 1. Sample characteristics

Variable	Category	Frequency (f)	Percentage (%)
Academic background	Undergraduate	53	86.9
	Graduate	8	13.1
Degree or specialization	No mention	23	37.7
	Language and communication	15	24.6
	Mathematics	10	16.4
	Natural sciences	3	4.9
	Music	2	3.3
	History	2	3.3
	Special education	2	3.3
	Religion	1	1.6
	Technology	1	1.6
	English	1	1.6
	Computing	1	1.6
Music courses during initial training	Yes	26	42.6
	No	35	57.4
Type of institution where you work	Public	37	60.7
	Private	10	16.4
	Subsidized	8	13.1
	Various	5	8.2
	Others	1	1.6

Of the participants, 86.9% had undergraduate degrees and 13% had postgraduate degrees. Regarding specializations, 37.7% had no specialization, 24% specialized in language and communication, and 37.7% specialized in mathematics. Regarding music at university, 57% stated that they did not take any courses related to this subject during their teacher training. Finally, 60% of the teachers worked in public schools, 16% in private schools, and 13% in mixed schools.

3.2. Research instruments

The self-efficacy scale for music teaching for generalist primary school teachers, created by Özmenteş [59], establishes dimensions conceptually oriented towards instrumental education, vocal education, the teaching of music theories, the application of music teaching methods, independence in acquiring musical knowledge, the use of instruments and voice, and self-efficacy in ensuring students' affective development. The scale items were developed using a 5-point Likert-type rating scale and scored as: 5 points=strongly agree, 4 points=agree, 3 points=somewhat agree, 2 points=disagree, and 1 point=strongly disagree. The highest possible score on the scale was 115.00, while the lowest was 23.00. Scores above 69 indicate high levels of self-efficacy in music teaching, while scores below 68 indicate low self-efficacy (there is no mean score). The scale consists of 23 items. The Cronbach's alpha reliability coefficient for the scale was 0.924.

The interview was developed as: i) an open-ended interview guide was created based on qualitative self-efficacy studies; ii) questions were designed to explore opinions, experiences, training, and perceptions regarding music and activities related to teacher self-efficacy; iii) two types of interviews were conducted: one for teachers with high self-efficacy and one for teachers with low self-efficacy; iv) the instrument's validity was established through expert validation; and v) after the suggestion correction process, the final semi-structured interview script was adjusted, allowing not only in-depth information on important topics, but also questions or themes to emerge in the discourse from the participants.

3.3. Research procedures and data analysis

The self-efficacy scale allows for the collection of quantitative data that can be generalized to the levels of self-efficacy among primary school teachers. Statistical software (SPSS 21) was used to perform descriptive and frequency analyses for each item on the scale. The interview responses were subjected to content analysis [61]. Content analysis verifies the presence of themes, words, or concepts within the content and their meanings in context. The initial codebook consisted of definitions by Özmenteş [59], which were based on those of Bandura [50], along with specific guidance from the self-efficacy literature regarding the types of responses to be coded for each source.

To identify cases related to increases or decreases in self-efficacy, the codebook included positive and negative codes for each source. Additional codes were added and redefined to code other experiences that teachers described as increasing or decreasing their confidence during the interview. Using NVIVO 14 software, the coders met after coding a subset of the data to refine the codebook and establish reliability [62]. In the final results and discussion stage, the two connected sets of results (quantitative and qualitative) were integrated, and conclusions were drawn regarding how the qualitative results explained and expanded upon the specific quantitative results.

4. RESULTS

The quantitative data from the self-efficacy scale provided a statistical understanding of teachers' self-efficacy in music teaching. While this quantitative data is valuable, it cannot fully capture teachers' individual experiences. The qualitative phase, using semi-structured interviews, explored how teachers perceived their self-efficacy in music teaching, considering their training and educational context. Based on constructivist theory [58], the interviews revealed how teachers' experiences and musical training influenced their perceptions of self-efficacy. This method quantitatively identifies levels of self-efficacy and provides contextual understanding. The integration of both approaches leads to more robust conclusions. Table 2 presents the survey results regarding the self-efficacy levels of the teachers who participated in this study. It also includes accounts from the interviews related to the dimensions developed by the scale.

This demonstrates a clear difference in the perceptions of teachers with high self-efficacy. While these teachers are quite critical of their teaching and their own abilities, they tend to be more motivating, positive, and innovative; they seek help and are self-directed in their classes. Conversely, teachers with low self-efficacy tend to be more pessimistic about their knowledge and skills, have less initiative, and tend to blame their environment or institutions. Both types of teachers strongly criticized their limited or nonexistent initial teacher training in music, with little instrumental/vocal practice, which was only provided in one semester, and considered insufficient for all they have to do in the classroom.

Table 2. Summary of results by dimension of teacher self-efficacy in music teaching (N=61)

Dimension		M High self-efficacy	M Low self-efficacy	Qualitative narrative
Instrumental education	Instrument use	4.5	2.2	"I don't know any of the instruments because, to be honest, I only learned them for the competition at university; the song they told me to play, and that would be it, because on top of that, I feel like I don't have that ability" (PG5) "If you give me an instrument, I'll play the notes, but if you tell me to do a G scale… I won't be able to find the chord" (PG6).
	Teaching an instrument	4.7	2.8	
	Accompanying songs	3.8	2.9	
Vocal education	Voice training	4.1	3.2	"I don't sing, so I couldn't be someone who teaches singing or how to appreciate music" (PG1) "I've always said that I sing badly" (PG2).
	Song instruction	3.0	1.5	
	Voice techniques	3.8	2.1	
	Rhythmic accompaniment	3.4	1.8	
Music theory	Musical reading	4.4	3	"I also found my own methods for teaching flute… I would assign the note, for example, to the metallophone, and that way they knew how to play it" (PG3). "The flute was the only instrument used to assess the subject. They taught us the basics of the subject. (PG8).
	Musical concepts	2.9	2.4	
Music education	Competent to teach music	3.2	2.8	"I think one makes an effort to try to innovate with more musical methods, especially at the beginning; one tries to do meaningful work for the children that motivates them" (PG4).
	Managing music	4.5	2.8	
	Musical events	3	2.6	
	Improving music education	3.6	2.1	"When I was told that I would be teaching fifth and sixth grades, I consulted with a colleague. I told him, 'Hey, I know you are a music teacher […], I need you to guide me on musical methods'" (PG3).
Acquiring musical knowledge	Using instruments in class	4.4	2.5	"I don't know, but if I can find the answer, I will," and they themselves tell me, "Let's go to Google and search" (PG5).
	Teaching an instrument	4.5	2.9	"I have a music colleague I can ask, so it's not like I do not know this and I do not teach it. I generally find out, I ask, I look for information" (PG5).
	Accompanying a song with an instrument	3.5	2.9	
Use of instrument and voice	Rhythmic activities	3.6	1.8	"I don't sing, maybe I'm not the best role model for girls" (PG6). "I think that all the shortcomings of almost all schools are related to the instruments" (PG10).
	Leading the national anthem	3.6	1.8	
Self-efficacy for student development	Motivation	3	1.7	"If there is something I do not know, I, as a person, do not want to remain in doubt. I know I have the ability to investigate with my students at that moment and resolve their doubts" (PG7). "I believe that one makes an effort to try to innovate in some things, especially at the beginning of the semester. One tries to do meaningful work for the children that motivates them" (PG4).
	Creativity	3	2	
	Loving music	3.6	2	
	Answering questions	5	2.3	
	Teaching music	3.1	2.8	

5. DISCUSSION

Integrating these data allows us to corroborate and compare the results obtained by each methodological approach, making it possible to identify deeper patterns and relationships between teachers' perceptions, their educational practices, and their perceived impact on student development. The integration of quantitative and qualitative findings also provides a broader understanding of how self-efficacy is constructed and manifested in the context of music teaching in Chile's primary education. In this sense, the mixed-methods approach made it possible to contrast the statistical trends identified in the questionnaires with the narratives expressed during the interviews and to reveal tensions, challenges, and contextual factors that influence teachers' confidence in teaching music. Figure 1 presents the integrated findings to provide a holistic view of teacher self-efficacy in primary music education in Chile.

The first category, insecurity in musical competence in instrumental and vocal use and education, refers to the impact of limited academic training and a lack of resources. Teachers expressed personal insecurity regarding their musical competence. Furthermore, they lack the ability to teach instruments, primarily because of inadequate training and limited resources [63]. This lack of preparation and access to instruments makes teachers feel underqualified [64]. Insecurity in vocal competence also limits teaching effectiveness, which is affected by insufficient resources and training [65]. Resource scarcity affects both instrumental and vocal instruction, limiting students' learning opportunities. This highlights the need for greater investment in teacher training and school equipment to improve self-efficacy in music teaching. Only by strengthening these areas will teachers be able to effectively develop students' musical competence.

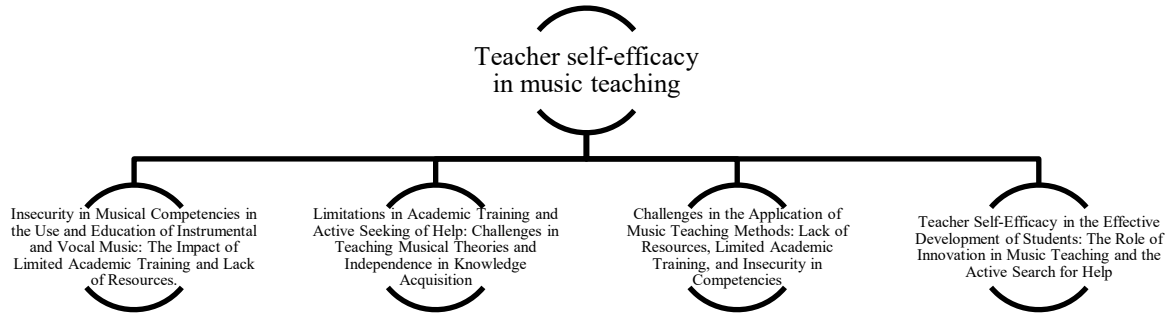

Figure 1. Emerging categories from the integrated findings

The second category, challenges in academic training and the search for support: obstacles in teaching music theory and autonomy in knowledge acquisition, music theory teachers face challenges due to insufficient academic training, which generates insecurity when teaching fundamental concepts such as solfège and chord theory [66]. Despite barriers that prevent them from continuing professional development, many teachers seek support from colleagues and external resources to improve their teaching practices. Furthermore, teachers' lack of confidence in learning new concepts affects their self-efficacy [67] and their ability to foster student autonomy in developing musical skills. These challenges highlight the need for stronger initial training and professional development to improve teachers' self-efficacy.

The third category highlights the challenges in implementing musical pedagogical methods: resource scarcity, inadequate training, and lack of confidence in competencies. This refers to the obstacles faced in implementing music teaching methodologies due to insufficient university training for generalist teachers. Limited training affects their competence in music teaching, hindering the development of innovative pedagogical techniques and effective, student training. Resource and time constraints in teacher training programs lead to traditional teaching methods, which negatively impact student motivation and learning [68]. Teachers' insecurity regarding their musical competencies further limits the implementation of new strategies, while resource scarcity restricts experimentation with engaging methods [69]. However, teachers actively seek support and use technology to improve their practice. This suggests that greater access to training could lead to more effective approaches to music education.

The fourth category concerns teacher self-efficacy in effective student development: the role of innovation in music teaching and actively seeking help from others. In this regard, the self-efficacy of generalist music teachers significantly influences their ability to foster student development [29]. Teachers confident in implementing innovative methods demonstrate greater creativity in their approaches to educating and motivating students. These innovative techniques enhance the educational experience and relevance of teaching. Teachers' capacity for innovation depends on seeking support through collaboration with colleagues, technology, and professional development opportunities. Access to these support systems improves teachers' self-efficacy and their ability to address teaching challenges [70]. Teachers with high confidence in innovation improve their pedagogical practices, contributing to students' holistic development. They promote critical thinking and creativity while developing students' musical competence, which affects both affective and cognitive growth.

Overall, the findings of this study highlight three central aspects of teacher self-efficacy in music teaching among primary generalist teachers. First, low self-efficacy in instrumental and vocal competencies was strongly associated with limited initial training and insufficient institutional resources, consistent with previous international studies [2], [7], [21], [45], [47], [49]. Second, the results show that despite these constraints, teachers with higher self-efficacy tended to develop adaptive strategies such as pedagogical innovation, use of technology, and active help-seeking [33]. Third, this study contributes to the literature by integrating quantitative self-efficacy levels with qualitative teacher narratives, offering a more nuanced understanding of how self-efficacy in music teaching is constructed through professional experience and context. From a theoretical perspective, these findings extend Bandura's concept of self-efficacy by illustrating the interaction between internal beliefs and external factors in a subject-specific educational context. Methodologically, the mixed-methods sequential design strengthened the interpretation of self-efficacy beyond numerical measures, addressing the limitations identified in previous single-method studies.

The results of this study have significant practical and policy implications for music education and for teacher training. Practically, this study underscores the importance of enhancing musical abilities, especially in playing instruments and singing, within initial teacher education programmers for generalist

primary school educators. Offering more hands-on and practice-focused music training could help alleviate teachers' insecurities and boost their confidence in delivering music lessons. Furthermore, schools should foster institutional support by providing access to musical resources, opportunities for professional growth, and collaborative environments that inspire innovative teaching methods. From a policy standpoint, the findings indicate that music education should be prioritized in the curricula of compulsory education and in teacher-training frameworks. Educational policies that acknowledge the impact of teacher self-efficacy on teaching quality could lead to more enduring improvements in music instruction, particularly in settings where specialist music teachers are unavailable to teach music.

6. CONCLUSION

This study concludes that generalist primary school teachers' self-efficacy is a decisive factor in understanding how they approach teaching music and, at the same time, influences how they perceive their own abilities. The findings confirm that high levels of self-efficacy foster more innovative and diverse practices, whereas low levels are associated with the predominant use of traditional strategies. Initial teacher training emerges as the critical point for these differences: the limited musical preparation many teachers receive restricts their confidence and performance, forcing them to approach music teaching with insecurity and insecurity.

Continuing professional development and collaborative work, on the other hand, appear as effective ways to strengthen musical competencies and expand the available pedagogical repertoire. Beyond individual performance, the results reaffirm the importance of music in the holistic development of children, not only for its cognitive and emotional benefits but also for its contribution to creativity, inclusion, and social interaction. However, its marginal place in the national curriculum limits both teachers and students' access to meaningful artistic experiences. Finally, it is concluded that teacher self-efficacy and music education must be addressed together in initial teacher training and continuing professional development, supported by policies that give music a central role in basic education. Future studies could explore how specific institutional contexts influence the development of self-efficacy and teachers' ability to offer enriching musical experiences in the Chilean classroom.

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AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Karla Valdebenito	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Alejandro Almonacid-Fierro		✓				✓		✓	✓	✓	✓	✓		

C : **C**onceptualization
M : **M**ethodology
So : **So**ftware
Va : **Va**lidation
Fo : **Fo**rmal analysis
I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : Writing - **O**riginal Draft
E : Writing - Review & **E**diting
Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

ETHICAL APPROVAL

Research related to human use complied with all relevant national regulations and institutional policies in accordance with the tenets of the Helsinki Declaration and was approved by the authors' institutional review board or equivalent committee (Universidad Católica del Maule, Nº 77/2023).

DATA AVAILABILITY

The data supporting the findings of this study are available from the corresponding author, [KV], upon reasonable request.

REFERENCES

[1] R. Palacios, S. Larrazabal, and M. Monzalve, "Evident demands and absent changes: special education teachers' initial training in Chile," *British Journal of Special Education*, vol. 49, no. 4, pp. 628–647, Dec. 2022, doi: 10.1111/1467-8578.12423.

[2] S. Burak, "Self-efficacy of pre-school and primary school pre-service teachers in musical ability and music teaching," *International Journal of Music Education*, vol. 37, no. 2, pp. 257–271, May 2019, doi: 10.1177/0255761419833083.

[3] F. King, "Music activities delivered by primary school generalist teachers in Victoria: informing teaching practice," *Australian Journal of Teacher Education*, vol. 43, no. 4, pp. 175–186, Apr. 2018, doi: 10.14221/ajte.2018v43n4.10.

[4] J. L. Potter, "Novice and experienced elementary general music teachers' classroom management self-efficacy," *Journal of Music Teacher Education*, vol. 30, no. 2, pp. 65–76, Feb. 2021, doi: 10.1177/1057083720980465.

[5] J. H. Saetre, "Why school music teachers teach the way they do: a search for statistical regularities," *Music Education Research*, vol. 20, no. 5, pp. 546–559, Oct. 2018, doi: 10.1080/14613808.2018.1433149.

[6] P. A. González-Moreno, "Music teacher education in Mexico: current trends and challenges," in *The Preparation of Music Teachers: A Global Perspective*, 1st ed., S. Figueiredo, J. Soares, and R. F. Schambeck, Eds., Porto Alegre: ANPPOM, 2015.

[7] M. S. Barrett, K. Zhukov, and G. F. Welch, "Strengthening music provision in early childhood education: a collaborative self-development approach to music mentoring for generalist teachers," *Music Education Research*, vol. 21, no. 5, pp. 529–548, Oct. 2019, doi: 10.1080/14613808.2019.1647154.

[8] E. Angelo, J. Knigge, M. Sæther, and W. Waagen, "Higher education as context for music pedagogy research," in *Higher Education as Context for Music Pedagogy Research*, E. Angelo, J. Knigge, M. Sæther, and W. Waagen, Eds., Oslo: Cappelen Damm Akademisk/NOASP, 2021, pp. 7–17, doi: 10.23865/noasp.119.ch00.

[9] D. Joseph, "'I did not know what to expect': music as a means to achieving work-life balance," *Research Studies in Music Education*, vol. 43, no. 2, pp. 161–178, Jul. 2021, doi: 10.1177/1321103X19899176.

[10] S. Powel and G. L. Rocca, "Supporting early childhood teachers with Orff: The potential of targeted professional learning to build skill and confidence to sing with children," *Musicworks: Journal of the Australian Council of Orff Schulwerk*, vol. 26, pp. 25–32, 2021.

[11] Ministerio de Educacion de Chile, "Exempt decree no. 2960: approves basic education curricula and course outlines for the courses and subjects listed," (in Spanish). Accessed: Oct. 22, 2025. [Online]. Available: https://bcn.cl/2lxu9

[12] T. Buchborn, H. Schmauder, E.-M. Tralle, and J. Völker, "Hegemony in German school music education and music teacher training? An analysis of current curricula," *Zeitschrift für kritische Musikpädagogik*, vol. 4, pp. 35–60, 2021.

[13] L. Shuwen, "Relevance of music education in the cultural program of contemporary college students," *US-China Education Review A*, vol. 14, no. 1, pp. 56–59, Jan. 2024, doi: 10.17265/2161-623X/2024.01.006.

[14] Z. Yu and B.-W. Leung, "Music teachers and their implementation of the new music curriculum standards in China," *International Journal of Music Education*, vol. 37, no. 2, pp. 178–197, May 2019, doi: 10.1177/0255761418820647.

[15] G. Lipsitz, "The possessive investment in classical music," in *Seeing Race Again: Countering Colorblindness across the Disciplines*, K. W. Crenshaw, L. C. Harris, D. M. HoSang, and G. Lipsitz, Eds., Oakland, CA: University of California Press, 2019, pp. 155–174.

[16] S. Cronenberg, "Music teachers' perceptions of general music as a required middle level course," *RMLE Online*, vol. 43, no. 9, pp. 1–24, Oct. 2020, doi: 10.1080/19404476.2020.1818020.

[17] C. Poblete, A. Leguina, N. Masquiarán, and B. Carreño, "Informal and non formal music experience: power, knowledge and learning in music teacher education in Chile," *International Journal of Music Education*, vol. 37, no. 2, pp. 272–285, May 2019, doi: 10.1177/0255761419836015.

[18] T. Undurraga and M. Gárate, "The cultural decline of the Chilean model: the aftermath of the 2019 social uprising," *History of Political Economy*, vol. 55, no. S1, pp. 227–254, Dec. 2023, doi: 10.1215/00182702-10875143.

[19] J. L. Aróstegui and J. Kyakuwa, "Generalist or specialist music teachers? Lessons from two continents," *Arts Education Policy Review*, vol. 122, no. 1, pp. 19–31, Jan. 2021, doi: 10.1080/10632913.2020.1746715.

[20] L. Ibbotson and B. H. See, "Delivering music education training for non-specialist teachers through effective partnership: a Kodály-inspired intervention to improve young children's development outcomes," *Education Sciences*, vol. 11, no. 8, p. 433, Aug. 2021, doi: 10.3390/educsci11080433.

[21] P. de Vries, "Generalist teachers' self-efficacy in primary school music teaching," *Music Education Research*, vol. 15, no. 4, pp. 375–391, Dec. 2013, doi: 10.1080/14613808.2013.829427.

[22] M. Bremmer, "Where's the body? Reconsidering the concept of pedagogical content knowledge through research in music education with Dutch specialist preschool music teachers," *British Journal of Music Education*, vol. 38, no. 2, pp. 119–130, Jul. 2021, doi: 10.1017/S0265051720000285.

[23] H. Holden and S. Button, "The teaching of music in the primary school by the non-music specialist," *British Journal of Music Education*, vol. 23, no. 1, pp. 23–38, Mar. 2006, doi: 10.1017/S0265051705006728.

[24] S. Hallam *et al.*, "Trainee primary-school teachers' perceptions of their effectiveness in teaching music," *Music Education Research*, vol. 11, no. 2, pp. 221–240, Jun. 2009, doi: 10.1080/14613800902924508.

[25] L. Heyning, "The enhancement of musical and other learning for both teachers and students through a weekly choir session," *Australian Journal of Music Education*, no. 1, pp. 58–70, 2010.

[26] C. Kempton, *Developing music at key stage 2: a practical guide for non-specialist teachers in the primary school*. Exeter, U.K.: Southgate Publishers, 1992.

[27] G. Stunell, "Not musical? Identity perceptions of generalist primary school teachers in relation to classroom music teaching in England," *Action, Criticism, and Theory for Music Education*, vol. 9, no. 2, pp. 79–107, 2010.

[28] J. Henley, "How musical are primary generalist student teachers?" *Music Education Research*, vol. 19, no. 4, pp. 470–484, Oct. 2017, doi: 10.1080/14613808.2016.1204278.

[29] P. A. de Vries, "Teaching primary school music: coping with changing work conditions," *Music Education Research*, vol. 20, no. 2, pp. 201–212, Mar. 2018, doi: 10.1080/14613808.2016.1269734.

[30] M. Golding and S. Hannigan, "Juxtaposing teacher voices to explore upper primary school music teaching and learning," *Australian Journal of Music Education*, vol. 53, no. 1, pp. 17–27, 2020.

[31] D. Barni, F. Danioni, and P. Benevene, "Teachers' self-efficacy: the role of personal values and motivations for teaching," *Frontiers in Psychology*, vol. 10, p. 465388, Jul. 2019, doi: 10.3389/fpsyg.2019.01645.
[32] C. Carroll and J. Harris, "'Because I'm not musical': a critical case study of music education training for pre-service generalist primary teachers in Australia," *British Journal of Music Education*, vol. 40, no. 2, pp. 271–286, Jul. 2023, doi: 10.1017/S0265051722000274.
[33] M. Biasutti and E. Concina, "The effective music teacher: the influence of personal, social, and cognitive dimensions on music teacher self-efficacy," *Musicae Scientiae*, vol. 22, no. 2, pp. 264–279, Jun. 2018, doi: 10.1177/1029864916685929.
[34] H. Gardner, *Multiple intelligences: new horizons in theory and practice*. New York, NY: Basic Books, 2010.
[35] N. Dibben, "Transforming musical (multi) media," in *Remixing Music Studies: Essays in Honour of Nicholas Cook*, 1st ed., A. Aguilar, R. Cole, M. Pritchard, and E. Clarke, Eds., New York, NY: Routledge, 2020, pp. 167–182.
[36] C. Esimone, "Music: a means of instruction in early childhood education," *Awka Journal of Research in Music and Arts*, vol. 14, pp. 24–38, 2021.
[37] G. Welch, R. Purves, D. Hargreaves, and N. Marshall, "Early career challenges in secondary school music teaching," *British Educational Research Journal*, vol. 37, no. 2, pp. 285–315, Apr. 2011, doi: 10.1080/01411921003596903.
[38] B. T. Vila, "Music as a tool for foreign language learning in early childhood education and primary education. Proposing innovative CLIL music teaching approaches," *CLIL. Journal of Innovation and Research in Plurilingual and Pluricultural Education*, vol. 4, no. 1, pp. 35–47, Jan. 2021, doi: 10.5565/rev/clil.60.
[39] J. Pitt, "Communicating through musical play: combining speech and language therapy practices with those of early childhood music education – the SALTMusic approach," *Music Education Research*, vol. 22, no. 1, pp. 68–86, Jan. 2020, doi: 10.1080/14613808.2019.1703927.
[40] L. S. Sari, A. A. Sulistiono, and L. H. Winingsih, "Effect of psychomotor development on physical health, mental health and student achievement," *International Journal of Educational Policy Research and Review*, vol. 7, no. 6, pp. 228–240, 2020, doi: 10.15739/IJEPRR.20.024.
[41] H. Guo, W. Yuan, C. V. Fung, F. Chen, and Y. Li, "The relationship between extracurricular music activity participation and music and Chinese language academic achievements of primary school students in China," *Psychology of Music*, vol. 50, no. 3, pp. 742–755, 2022, doi: 10.1177/03057356211027642.
[42] M. Koivuniemi, H. Järvenoja, and S. Järvelä, "Teacher education students' strategic activities in challenging collaborative learning situations," *Learning, Culture and Social Interaction*, vol. 19, pp. 109–123, Dec. 2018, doi: 10.1016/j.lcsi.2018.05.002.
[43] A. Ehrlin and C. Wallerstedt, "Preschool teachers' skills in teaching music: two steps forward one step back," *Early Child Development and Care*, vol. 184, no. 12, pp. 1800–1811, Dec. 2014, doi: 10.1080/03004430.2014.884086.
[44] T. Agrawal, J. Rottman, and A. Schachner, "How musicality changes moral consideration: people judge musical entities as more wrong to harm," *Psychology of Music*, vol. 51, no. 1, pp. 316–336, Jan. 2023, doi: 10.1177/03057356221096507.
[45] D. Russell-Bowie, "What me? Teach music to my primary class? Challenges to teaching music in primary schools in five countries," *Music Education Research*, vol. 11, no. 1, pp. 23–36, Mar. 2009, doi: 10.1080/14613800802699549.
[46] J. Goodman, "Reviewed work: teachers as intellectuals: toward a critical pedagogy of learning (Henry A. Giroux)," *The Journal of Education*, vol. 170, no. 2, pp. 142–149, 2024.
[47] S. Hallam and R. MacDonald, "The effects of music in community and educational settings," in *The Oxford Handbook of Music Psychology*, S. Hallam, I. Cross, and M. Thaut, Eds., Oxford, U.K.: Oxford University Press, 2008, pp. 471–480, doi: 10.1093/oxfordhb/9780199298457.013.0044.
[48] D. J. Hargreaves, R. MacDonald, and D. Miell, *The Oxford handbook of musical identities*. Oxford, U.K.: Oxford University Press, 2018.
[49] J. S. Begic, A. Begic, and T. Skojo, "Opinions of university music teachers on the musical competencies necessary for primary education teachers," *International Journal of Higher Education*, vol. 6, no. 1, pp. 197–208, Jan. 2017, doi: 10.5430/ijhe.v6n1p197.
[50] A. Bandura, *Self-efficacy: the exercise of control*. New York, NY: W. H. Freeman, 1997.
[51] I. Nikolić, S. Kodela, and B. Pindović, "Musical abilities development: when to start music education?" *Facta Universitatis, Series: Visual Arts and Music*, vol. 9, no. 1, pp. 51–61, Jul. 2023, doi: 10.22190/FUVAM230418005N.
[52] L. H. Havrilova, O. Y. Ishutina, V. V. Zamorotska, and D. A. Kassim, "Distance learning courses in developing future music teachers' instrumental performance competence," in *CEUR Workshop Proceedings*, 2019, pp. 429–442, doi: 10.55056/cte.404.
[53] A. Corbu, M. J. P. Zuberbühler, and M. Salanova, "Positive psychology micro-coaching intervention: effects on psychological capital and goal-related self-efficacy," *Frontiers in Psychology*, vol. 12, p. 566293, Feb. 2021, doi: 10.3389/fpsyg.2021.566293.
[54] D. H. Schunk and M. K. DiBenedetto, "Self-efficacy and human motivation," in *Advances in Motivation Science*, A. J. Elliot, Ed., Amsterdam: Elsevier, 2021, pp. 153–179, doi: 10.1016/bs.adms.2020.10.001.
[55] M. Hussain, A. Gupta, P. Kumar, M. I. Hussain, and A. K. Das, "Experimental study and statistical analysis of bending titanium alloy sheet with continuous wave fiber laser," *Archives of Civil and Mechanical Engineering*, vol. 22, no. 3, pp. 110–116, Apr. 2022, doi: 10.1007/s43452-022-00426-4.
[56] H. N. Perera, C. Calkins, and R. Part, "Teacher self-efficacy profiles: determinants, outcomes, and generalizability across teaching level," *Contemporary Educational Psychology*, vol. 58, pp. 186–203, Jul. 2019, doi: 10.1016/j.cedpsych.2019.02.006.
[57] J. W. Creswell and V. L. P. Clark, *Designing and conducting mixed methods research*, 3rd ed. Thousand Oaks, CA: SAGE Publications, Inc., 2018.
[58] A. Gamlen and C. McIntyre, "Mixing methods to explain emigration policies: a post-positivist perspective," *Journal of Mixed Methods Research*, vol. 12, no. 4, pp. 374–393, Oct. 2018, doi: 10.1177/1558689818782822.
[59] S. Özmenteş, "Development of a self-efficacy scale for music education," (in Turkish), *Journal of Educational and Instructional Studies in the World*, vol. 1, no. 1, pp. 30–36, 2011. [Online]. Available: https://www.ajindex.com/dosyalar/makale/acarindex-1423906144.pdf
[60] L. Maestripieri, A. Radin, and E. Spina, "Methods of sampling in qualitative health research," in *Researching Health: Qualitative, Quantitative and Mixed Methods*, 3rd ed., M. Saks and J. Allsop, Eds., Thousand Oaks, CA: SAGE Publications, Inc., 2019, pp. 83–101.
[61] M. B. Miles, A. M. Huberman, and J. Saldaña, *Qualitative data analysis: a methods sourcebook*, 3rd ed. Thousand Oaks, CA: SAGE Publications, Inc., 2014.
[62] V. Braun and V. Clarke, "Using thematic analysis in psychology," *Qualitative Research in Psychology*, vol. 3, no. 2, pp. 77–101, Jan. 2006, doi: 10.1191/1478088706qp063oa.
[63] M. K. Khribi, A. Othman, and A. Al-Sinani, "Toward closing the training and knowledge gap in ICT accessibility and inclusive design harnessing open educational resources," in *2022 International Conference on Advanced Learning Technologies (ICALT)*, Jul. 2022, pp. 289–291, doi: 10.1109/ICALT55010.2022.00093.

[64] L. Naveda and M. Nunes-Silva, "Breaking down the musician's minds: how small changes in the musical instrument can impair your musical performance," *Journal of New Music Research*, vol. 50, no. 4, pp. 373–391, Aug. 2021, doi: 10.1080/09298215.2021.1973511.
[65] C. Munier and R. Farrell, "Working conditions and workplace barriers to vocal health in primary school teachers," *Journal of Voice*, vol. 30, no. 1, pp. 127.e31-127.e41, Jan. 2016, doi: 10.1016/j.jvoice.2015.03.004.
[66] T. Attah, E. Cavett, B. Dueck, S. Miller, and L. Redhead, "Teaching music theory in UK higher education today: contexts and commentaries," *Music Education Research*, vol. 26, no. 1, pp. 71–81, Jan. 2024, doi: 10.1080/14613808.2024.2306650.
[67] A. T. Pasha, F. Shahid, and M. S. Malik, "Enhancing brand identification through consumer self-efficacy: mediating role of consumer vanity and moderating role of brand personality," *Journal of Social Research Development*, vol. 4, no. 2, pp. 445–456, Jun. 2023, doi: 10.53664/jsrd/04-02-2023-18-445-456.
[68] R. D. Pestano and F. P. Ibarra, "Pedagogical competencies and classroom anxieties in teaching general music," *Indonesian Research Journal in Education (IRJE)*, vol. 5, no. 1, pp. 245–259, Jun. 2021, doi: 10.22437/irje.v5i1.12098.
[69] V. Vasilaki, "Pre-school teachers' views on the impact of visual arts education on early childhood education," *Innovare Journal of Education*, pp. 1–9, Jul. 2024, doi: 10.22159/ijoe.2024v12i4.51710.
[70] S. R. Sharp, G. L. Rutherford II, and K. I. Echols, "Creative science through inquiry: improving teacher self-efficacy and outcome expectancy through adaptable, mystery-based professional development," *International Journal of Innovation in Science and Mathematics Education*, vol. 30, no. 1, Mar. 2022, doi: 10.30722/IJISME.30.01.005.

BIOGRAPHIES OF AUTHORS

Karla Valdebenito holds a Ph.D. in Education, serves as a music teacher and orchestra conductor. She is also an academic and researcher within the Department of Foundations of Education at the Universidad Católica del Maule, Chile. Her scholarly work primarily concentrates on initial teacher training, with a particular emphasis on the development of pedagogical-musical competencies for the integration of music into early childhood and primary education. Her research interests encompass teacher self-efficacy in music education, the role of music in early childhood learning processes, and the interrelationship between musical experiences, executive functions, and logical-mathematical thinking. Additionally, she develops interdisciplinary approaches to initial teacher training, addressing topics such as the construction of pedagogical knowledge, the epistemological beliefs of prospective teachers, and inclusive education within diverse educational contexts. She can be contacted at: kvaldebenito@ucm.cl; kvaldebenitog@gmail.com.

Alejandro Almonacid-Fierro holds a Ph.D. in Physical Activity and Artistic Education. He is a Physical Education teacher and currently serves as the director of the Center for Research in University Teaching (DIDU) at the Universidad Católica del Maule, Chile. In this capacity, he has taught both undergraduate and graduate courses focusing on teacher training and university teaching. His scholarly work is centered on teacher education, the epistemology of human movement, and the processes of teaching and learning in higher education. His research explores the development of pedagogical knowledge, reflection on teaching practice, and the integration of theory and practice in both initial and ongoing teacher training. He has contributed to various projects and publications concerning university teaching, teacher professional development, and educational research. He can be contacted at: aalmonacid@ucm.cl.