A Delphi Study of Effective Practices for Determining the Competencies of Elementary Music Teachers

Benjie M. Manila^{1*}, Honey Bert G. Dayanan², Gloria S. Santos³
Polytechnic University of the Philippines-Mariveles, Bataan Campus
FAB, Malaya, Mariveles, Bataan
e-mail: bmmanila@pup.edu.ph¹, hgdayanan@pup.edu.ph², gssantos@pup.edu.ph³

Samuel A. Quiroz⁴
Department of Education, Schools Division of Bataan e-mail: samuelarellanoquiroz@gmail.com⁴

*Corresponding author: bmmanila@pup.edu.ph

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Abstract

This study aims to determine the competencies essential for elementary music teachers by exploring effective practices and insights of experts in music education. Using a three-round Delphi method with twelve music education experts, the study collected and refined competencies across three stages. In Round 1, qualitative data were thematically analysed to identify competency domains. In Round 2, participants ranked these domains and competencies by importance, with agreement levels assessed using Kendall's W. Round 3 sought consensus by allowing participants to review collective rankings and explanations. Results revealed seven key domains, with Musical Skills emerging as the most essential, with the ability to play an instrument being the most important competency.

Keywords: competencies, Delphi, elementary teachers, music education, musical skills

Introduction

The role of a teacher is pivotal in shaping students' futures, particularly in elementary education, where foundational skills and knowledge are developed.

Teachers must possess diverse skills and comprehensive knowledge to implement the goals of the curriculum effectively. In the context of music education, this includes not only musical expertise but also pedagogical strategies that foster students' artistic expression, cultural literacy, and national pride (Department of Education, 2016). Ensuring teachers have the requisite competencies is essential for realising these educational objectives. Studies consistently affirm the impact of teacher competencies on student outcomes. For instance, Fauth et al. (2019) found that teacher competencies, including pedagogical content knowledge, self-efficacy, and enthusiasm, positively affected student interest and achievement. Similarly, Istiqomah et al. (2019) demonstrated a direct impact of teacher competencies on student achievement, reinforcing the need for competency development programmes to enhance educational results.

Competencies are understood as a combination of observable, measurable qualities necessary for professional success, and encompass knowledge, skills, values, and personal characteristics (Wong, 2020). In education, these competencies underpin effective teaching and contribute positively to student learning. Establishing a structured competency framework is therefore crucial for guiding both pre-service and in-service teacher training. Concina (2023) further stresses that effective music educators exhibit professional skills, self-efficacy, and the ability to cultivate positive teacher-student relationships—traits fundamental to impactful music instruction.

In the Philippines, the Philippine Professional Standards for Teachers (PPST) provides a broad competency framework. While the PPST outlines essential domains such as content knowledge and pedagogy, learning environment, diversity of learners, curriculum and planning, assessment and reporting, community linkages and professional engagement, and personal growth and professional development (Department of Education-Teacher Education Council, 2017), its generalist approach may not adequately address the distinct needs of specialised subjects like music. Music education, especially at the elementary level, requires unique competencies due to its focus on performance-based learning, student engagement, skills development, and cultural appreciation (Department of Education, 2016).

This study aims to address this gap by determining key teaching competencies essential for elementary music teachers to effectively facilitate student-centred music learning. Using the Delphi method, a consensus-driven approach, this study gathered and refined expert opinions to establish competency standards grounded in effective practices rather than prescriptive or solely opinion-based guidelines. By proposing competency statements that support student-centred approaches, the study intends to enhance the quality of music education, fostering students' creative and critical thinking and deepening their appreciation of Filipino cultural heritage. Beyond classroom implications, this framework offers valuable insights for teacher preparation and professional development programmes to provide a competency-based guide for curriculum developers, policymakers, and educators to improve music education standards.

Literature Review

The Philippine Context: Challenges and Gaps in Music Teacher Competency

Labrador (2016) notes that in the Philippines, music education within the K to 12 music curriculum includes not only music theory but also elements of literature and cultural heritage. To effectively teach these subjects, teachers must be equipped to implement the concepts embedded in it. Furthermore, the first paragraph of the K to 12 music education curriculum's conceptual framework states that:

Both the music and the Arts curricula focus on the learner as recipient of the knowledge, skills, and values necessary for artistic expression and cultural literacy. The design of the curricula is student-centered, based on spiral progression of processes, concepts and skills, and grounded in performance-based learning. Thus, the learner is empowered, through active involvement and participation, to effectively correlate music and art to the development of his/her own cultural identity and the expansion of his/her vision of the world. (Department of Education, 2016, p. 2)

The framework emphasises that effective music teaching centres on student engagement, skill development, cultural appreciation, and empowering students to become creative and critical thinkers. However, recent studies highlight that many elementary teachers in the Philippines lack the necessary competencies to deliver a student-centred, performance-based music curriculum (Pestaño & Ibarra, 2021; Seloterio & Lopez, 2023; Silvestre & Itaas, 2020). This competency gap can result in sub-optimal teaching practices, impeding students' musical development and appreciation. In addition, music teachers, particularly in elementary schools, often struggle with inadequate resources and limited opportunities for specialised training (Roa & Luzano, 2023; Rodriguez-Carranza, 2016).

Issues within the structure of the educational system compound these challenges. Music is one of the components of the subject MAPEH, which stands for Music, Art, Physical Education, and Health. In high school, music classes are typically handled by teachers who are MAPEH or PE majors. However, at the elementary level, the situation is quite different. Here, primary education teachers often teach multiple subjects, including music. They are usually graduates of Bachelor of Elementary Education programmes or hold other teacher education degrees that qualify them to teach at the elementary level. As a result, music education is often delivered by non-music specialists, known as generalist teachers, who handle a broad range of general education subjects. These generalist teachers may lack the skills or training required to deliver a comprehensive and effective music curriculum. Speaking at an event commemorating the 45th anniversary of the Philippine Society for Music Education, Leticia G. del Valle, a professor of music education at the University of the Philippines College of Music, noted that many elementary school music teachers are motivated by a passion for music but also assume the role due to a shortage of qualified educators in the field (Rodriguez-Carranza, 2016). Additionally, studies by Pestaño and Ibarra (2021) and Roa and Luzano (2023) revealed that teachers are often hired to teach music out of necessity,

regardless of their specialisation. In light of these multifaceted challenges, it is crucial to address the competency gap in elementary music education through a structured and informed approach.

Competency Framework for Music Teachers

Research highlights the increasing need to develop subject-specific competency frameworks for teachers, particularly in fields like mathematics, science, and language, where such frameworks have been extensively studied and optimised (Liu & Wang, 2024; Ozdemir & Yalçın, 2018; Zand-Moghadam et al., 2021). Notably, Fong et al. (2013) used the Delphi technique to create an ICT competency standard, while Yusof and Karim (2011) developed an oral competency framework for secondary school teachers, illustrating how structured competency frameworks enhance teacher preparedness and effectiveness. However, despite advancements in other subjects, similar frameworks for music education, particularly at the elementary level, are sparse and require further study.

In the context of music education, Millican and Forrester (2017) identified core practices in teaching music through a Delphi panel survey, emphasising essential methods like modelling, instructional sequencing, and the deconstruction of musical concepts—strategies applicable across various music teaching contexts. Similarly, Vernia Carrasco (2018) proposed a framework categorising competencies into areas such as rhythmic, auditory/perceptive, vocal, reading, interpretative, body expression, technological, and cultural/artistic competence. Szczyrba-Poroszewska and Lasota (2023) further contributed to this field by presenting a model of musical competencies for preschool and school-age teachers, structured around substantive, methodological, and pedagogical dimensions. Their study confirmed that the musical competencies of teachers are combined with musical skills, knowledge of various methods of teaching, knowledge of notation, and understanding of musical principles, predispositions such as musical abilities and interests, and environmental influences such as family support and encouragement. Additionally, Begic et al. (2017) emphasised that primary music teachers should possess a combination of musical and pedagogical skills, including competencies such as vocal confidence, instrumental skills for accompaniment, familiarity with suitable compositions, ability to lead musical games, and a solid grasp of teaching methods in music education.

While these frameworks provide a foundation for music education internationally, there remains a significant gap in research specific to the Philippine context. To date, no studies have been conducted in the Philippines to identify and establish a set of competencies specifically for elementary music teachers. This lack of localised competency standards underscores the need for research that addresses the unique challenges and cultural contexts of music education in the country.

Limitations of General Competency Frameworks

The Philippine Professional Standards for Teachers (PPST) describes teacher quality in the Philippines by outlining the expectations for teachers' increasing knowledge,

practice, and professional engagement. The PPST has seven domains: content knowledge and pedagogy, learning environment, diversity of learners, curriculum and planning, assessment and reporting, community linkages and professional engagement, and personal growth and professional development (Department of Education-Teacher Education Council, 2017). Furthermore, the PPST serves as the basis for all teacher professional development programmes, ensuring that teachers are well-equipped to implement the K to12 programme (Department of Education-Teacher Education Council, 2017).

Although the PPST offers a broad framework for teacher competencies, the necessity of subject-specific competency standards is becoming more widely acknowledged. Although they provide a broad framework that all teachers can use, general competency standards like the PPST might not fully address the requirements and specialised abilities needed in many subject areas. Staskevica (2019) asserted that using general competency models does not guarantee the successful implementation of comprehensive competency-based training programmes in a specific area. By creating specialised competency standards, professional development may be more focused and ensure that teachers have the exact knowledge and skills required for their specific subject areas.

Theoretical Framework

The foundation of this study lies in multiple interconnected theories that collectively highlight the importance of teacher competencies, expert consensus, and constructivist pedagogy in shaping effective music education for elementary students. This framework draws upon Constructivist Theory (Bruner, 1966; Piaget, 1977; Vygotsky, 1978), Social Learning Theory (Bandura, 1971), Pedagogical Content Knowledge (Shulman, 1986), and the Philippine Professional Standards for Teachers (Department of Education-Teacher Education Council, 2017), complemented by Competency-Based Education (CBE) principles (Mulder, 2017) to provide a robust theoretical basis for the competencies of elementary music teachers.

Constructivist Theory (Bruner, 1966; Piaget, 1977; Vygotsky, 1978) and Social Learning Theory (Bandura, 1971) emphasise active, experiential, and socially interactive learning. Constructivism underlines the need for student-centred, handson learning experiences where students construct musical knowledge through engagement and collaboration. Social Learning Theory reinforces this by highlighting the teacher's role as a model for skills, behaviours, and attitudes that students can emulate. In music education, these theories stress the importance of competencies that enable teachers to create interactive, collaborative, and reflective learning spaces where students actively engage with music.

The PPST and Shulman's Pedagogical Content Knowledge (PCK) offer structured benchmarks that guide this study's identification of relevant competencies. The Philippine Professional Standards for Teachers (PPST), established by the Department of Education in 2017, outlines expectations for teacher proficiency. By incorporating PPST standards, this study ensures that the

identified competencies align with nationally recognised benchmarks, providing a culturally relevant framework for assessing and developing music teacher skills.

On the other hand, Shulman's (1986) concept of Pedagogical Content Knowledge (PCK) underscores the integration of subject expertise with teaching strategies: it recognises that effective music teaching requires both musical knowledge and the pedagogical skills to communicate that knowledge effectively. For music teachers, PCK involves the ability to contextualise musical concepts in ways that are accessible to young learners, blending technical skills with age-appropriate instructional techniques.

Moreover, this study draws on Shulman's PCK framework to emphasise that competencies in music teaching are multifaceted and require both content mastery and pedagogical adaptability. By applying the PCK model, the study acknowledges the complexity of music instruction, supporting the Delphi process in identifying competencies that reflect the dual requirement of subject matter expertise and effective teaching methodologies.

Competency-Based Education (CBE) principles further inform the study by addressing the importance of measurable, observable teacher competencies in enhancing student outcomes (Mulder, 2017). CBE emphasises that defining and assessing specific skills and knowledge is crucial for ensuring effective teaching practices. Research highlights that music education requires unique competencies, from musical performance to cultural knowledge and creativity, which are not fully captured by general teaching standards like the Philippine Professional Standards for Teachers (PPST). Previous studies also indicate that competency frameworks tailored to subject-specific needs can enhance instructional quality and student learning (Liu & Wang, 2024; Ozdemir & Yalcm, 2018). Therefore, this study employs CBE principles to build a consensus on the specialised competencies elementary music teachers need, aiming to align teacher training and development with the distinct requirements of music education.

Objectives of the Study

The general objective of this study was to identify essential teaching competencies that enable teachers to effectively facilitate student-centred music learning in elementary grades by examining effective practices and insights from experts in music education. The specific objectives were: 1) to determine the knowledge and skills elementary teachers need to foster an engaging, student-centred music environment based on expert practices in music education; 2) to establish a consensus among experts on core competencies essential for teaching music in elementary settings; and 3) to propose competency statements that support student-centred approaches to teaching music in the elementary grades.

Methodology

Research Method

The Delphi method was utilised to gather expert opinions on the essential teaching competencies for effectively teaching music at the elementary level. This method, known for its structured communication process aimed at achieving consensus among a panel of experts, is particularly well-suited for identifying critical competencies in specialised fields. Begic et al. (2017) provided a pertinent example of this approach, demonstrating its effectiveness in identifying essential competencies through expert feedback in the context of music education. Drawing from a broad range of literature on the Delphi methodology, several studies illustrate the applicability and efficacy of this technique across various domains (Arbabisarjou et al., 2016; Dolan & Lauer, 2001; Fong et al., 2013; Janke et al., 2016; Liu & Wang, 2024; Ozdemir & Yalcm, 2018; Sever & Bostanci, 2020; Sole et al., 2019). These studies underscore the Delphi method's utility in facilitating consensus-building among experts and its robustness in competency identification, making it an appropriate choice for this research on elementary music education.

Participants and Recruitment

The study involved 12 participants who were music teachers from public elementary and high schools, with an equal representation of six teachers from each level. These participants were considered experts in music education, defined as having either a bachelor's or master's degree in music education. Additionally, teachers at the elementary level who were recommended by the school heads from the Department of Education, Schools Division Office of Bataan, were also included as experts in teaching music in this study.

Participants were initially identified through the recommendations of school heads and MAPEH supervisors. A snowballing method was also utilised to complement this recruitment process, whereby identified participants were asked to recommend other teachers who could be part of the study. This approach ensured a comprehensive selection of music education experts for the research.

Data Collection Procedure and Analysis

The Delphi method in this study comprised three rounds. In the initial round, eight participants engaged in a qualitative interview to provide insights into critical competencies for teaching music to elementary learners. They were prompted to reflect on essential skills, knowledge, and traits they believed music students should develop; effective practices in teaching basic music concepts, skills, and activities; and strategies for assessing students' learning. Participants were also encouraged to share effective practices to identify and implement learning resources and activities that aid in achieving learning competencies. Their responses were analysed thematically, with related competencies grouped into key domains.

In the second round, participants completed an online questionnaire to rank these domains and competencies according to their perceived importance and to explain the rationale behind their rankings. In the final round, participants were presented with the collective results from the second round and asked to re-rank the domains and competencies, considering their peers' perspectives. To gauge the level of agreement among participants, Kendall's W was calculated at a 0.05 level of significance. This process ensured that the final list of competencies represented a well-considered consensus among the experts in music education.

Results and Discussion

Round 1 focused on determining the domains and competencies that are relevant to teaching elementary music. Seven themes emerged from the interviews. Each theme or domain encapsulates numerous competencies that were mentioned in the interview by at least 60% of the participants.

Musical Skills encompasses seven competencies, including instrumental competency, voice ability, aural skills, and music reading. The seven competencies in the Culturally Responsive Teaching domain stress knowledge of different cultures, adaptation of instruments and music, and culturally relevant teaching practices. Content Knowledge and Pedagogy also includes seven competencies, for example, music theory, instructional techniques, assessment, and curricular alignment.

The Learning Environment domain emphasises three competencies: creating a supportive environment, developing classroom management, and promoting diversity. The Learning Resources theme identified six competencies linked to resource usage, adaptation, creation, and technological integration. Personal and Professional Attributes highlight resourcefulness, a growth perspective, and patience. The last domain, Developing Cognitive, Affective, and Psychomotor Abilities, includes eight skills focused on creating and implementing learning experiences that encourage problem-solving, creativity, musical appreciation, and skill development.

These seven domains and their corresponding competencies form a comprehensive framework that encompasses the essential knowledge, skills, and dispositions required for effective elementary music teaching. A literature review supports these findings, indicating that musical competencies in preschool and school-age teachers include musical skills, methodical skills, knowledge, predispositions, and environmental influences, as well as cultural competence and reception (Szczyrba-Poroszewska & Lasota, 2023). Furthermore, the competencies indicated in the review significantly overlap with those outlined by Vernia Carrasco (2018), particularly in the domains of rhythmic, auditory, and vocal competencies. Both studies outlined above highlight music education's multifaceted nature, which necessitates musical abilities, pedagogical knowledge, and interpersonal skills.

Table 1. Round 1 Delphi results: Domains and competencies relevant to elementary music teachers

Theme/ Domain	Competency	f	%	
Musical	A1. Can play musical instruments	8	100	
Skills	A2. Can determine the timbre of the voices of learners		75	
	A3. Can play musical instruments by note	6	75	
	A4. Can sing by note	7	88	
	A5. Can sing properly (e.g., can sing on pitch or breathe correctly)	6	75	
	A6. Can independently learn to play or sing a new song by reading notes or listening to recorded music	6	75	
	A7. Can sing in harmony with others	6	75	
Culturally Responsive	B1. Has knowledge about the culture in the community and of the learners	5	63	
Teaching	B2. Can contextualise the instrument (e.g., can find community resources that match the curriculum's content)			
	B3. Has a repertoire of a variety of music such as foreign, national, and local	6	75	
	B4. Uses teaching strategies in accordance with students' interest	8	100	
	B5. Can design and implement differentiated learning activities to address learners' diversity		100	
	B6. Can localise and contextualise the content of the lesson to make it responsive, relevant, and meaningful to the learners			
	B7. Has knowledge and repertoire of folk songs that can be used in teaching	7	88	
Content	C1. Knows music theory	7	88	
Knowledge	C2. Has mastery of the content of elementary music curriculum	8	100	
and Pedagogy	C3. Can conduct drills of skills required before teaching the lesson (rhythm drills, melodic drills, etc.)	8	100	
	C4. Can conduct song analysis to introduce/teach musical elements	6	75	
	C5. Uses teaching methods appropriate and exclusive for music education (e.g., Kodály, Suzuki, Orff, Ward, Dalcroze)	6	75	
	C6. Can utilise assessment strategies consistent with the learning outcomes	7	88	
	C7. Can use songs as a springboard for music lessons	7	88	
Learning Environment	D1. Can establish a learning environment that is free from fear of judgement	8	100	
	D2. Can set classroom rules that promote/encourage discipline	8	100	
	D3. Can establish an inclusive learning environment	8	100	
Learning Resources	E1. Uses musical instruments to demonstrate and teach musical skills and concepts	8	100	
Resources	E2. Uses ICT in teaching, particularly web and software applications for music	5	63	
	E3. Can modify the content of available resources to suit learners' level of proficiency in a given lesson	6	75	
	E4. Uses technology to aid teaching (e.g., using recorded instruments rather than playing an actual instrument for vocal skills development)	8	100	
	E5. Is able to create instructional materials and resource materials based on the existing curriculum	7	88	
	E6. Is able to create instructional materials and resource materials based on the needs of the learners	7	88	

Personal and	F1. Is resourceful and can improvise if the needed instrument	8	100
Professional	and/or instructional material is not available		
Attributes	F2. Is willing to learn and be trained to acquire new skills and	7	88
	knowledge		
	F3. Is patient	8	100
	F4. Is able to recognise the talents and potentials of learners and be	6	75
-	able to nurture it		
Developing	G1. Can design and implement different activities that may develop	5	63
Cognitive,	problem-solving skills of pupils		
Affective,	G2. Can design and implement learning experiences that develop	6	75
and	learners' creativity		
Psychomotor	G3. Can design and implement learning experiences that develop	8	100
Abilities of	learners' love for music		
Learners	G4. Can design and implement learning experiences that develop	5	63
	learners to actualise their various potentials		
	G5. Can design an instruction that allows learners to experience the	5	63
	skills being taught		
	G6. Can design and implement learning experiences that allow	7	88
	learners to perform and apply what they have learned from the		
	lesson		
	G7. Can design and implement learning experiences that allow	5	63
	learners to express their ideas, creativity, as well as emotions		
	G8. Can design and implement learning experiences that would	5	63
	develop the confidence and self-esteem of learners		

After the qualitative analysis, the participants were presented with the list of domains and competencies for each domain. For Round 2, they were asked to rank order the competencies based on the perceived significance or what is most essential for music teachers to have. For Round 3, the overall median ranks and the explanations of the ranking of all participants were presented to each participant. Afterwards, they were asked to rank the competencies based on the degree of importance.

Musical Skills

The participants identified musical skills, specifically playing an instrument, vocal ability, and sight-reading as paramount for elementary music teachers. The strong consensus (W=0.605, p<0.01) reinforces the foundational importance of these skills in creating an effective learning environment. These musical competencies directly contribute to outcomes for Grades K to 3 by enabling teachers to lead performances and hands-on music-making activities, thus fostering students' appreciation and understanding of basic musical processes through active engagement. For Grades 4 to 6, teachers' proficiency in these skills helps in illustrating basic elements and concepts of music; these skills also allow students to deepen their knowledge through performance and guided practice.

Instrumental and vocal abilities are essential in demonstrating musical concepts clearly and in modeling techniques for students. This approach aligns with the Constructivist Theory (Piaget, 1977; Vygotsky, 1978) and Social Learning Theory (Bandura, 1971) foundations, where learning is facilitated through teacher demonstration and student participation. The findings of Begic et al. (2017) support

the study's emphasis on instrumental and vocal proficiency as essential competencies for primary music educators. They highlight that primary school teachers must be able to sing on pitch and play a backing instrument, as these skills directly impact their ability to teach singing and music fundamentals effectively.

Moreover, Altun (2010) emphasises that a certain level of musical ability and expertise is necessary for elementary school teachers to employ effective teaching techniques. The ability to teach a song, which is a core task in many music lessons, requires a teacher to have both musical knowledge and practical skills. This expertise enables teachers to engage students actively and maintain their interest in the subject.

Culturally Responsive Teaching

Within the culturally responsive teaching domain, participants identified knowledge about the culture of the community and learners as the most crucial competency. The strong level of agreement in Round 3 (W=0.609, p<0.01) underscores a strong collective belief in the value of culturally responsive teaching. This finding indicates that educators see a deep understanding of the community and learners' cultural backgrounds as essential for effective teaching. This competency resonates with the Philippine Professional Standards for Teachers (Department of Education-Teacher Education Council, 2017), which emphasise cultural inclusivity, enabling teachers to contextualise music in a culturally relevant way for students.

A teacher's knowledge of the local culture enables incorporating culturally relevant materials, making the learning experience more engaging and meaningful for students. This approach not only enhances students' appreciation of music but also fosters a deeper connection to the material, as it resonates with their personal and communal identities. Educators can create a more inclusive and responsive learning environment that acknowledges and values students' backgrounds by integrating cultural elements into the curriculum. Perez and Timbol-Guadalupe's (2021) findings, which demonstrated positive cognitive and psychomotor outcomes from culturally aligned teaching resources, support this perspective. By incorporating cultural elements into music education, teachers promote appreciation and understanding of diverse musical traditions, helping students develop a sense of self and identity through music.

Content Knowledge and Pedagogy

Within this domain, the high consensus (W=0.734, p<0.01) on competencies related to music theory knowledge, mastery of music curriculum, and specialised instructional methods (e.g., Kodály, Suzuki, Orff, Ward, and Dalcroze) highlight their role in achieving learning objectives across grade levels. For K to 3 students, such competencies enable teachers to facilitate basic music appreciation and skill acquisition through age-appropriate methods. For Grades 4 to 6, these skills help students understand and apply musical concepts in more complex ways, aiding in their development of a structured understanding of music. This finding aligns with Pedagogical Content Knowledge (PCK) by Shulman (1986), which integrates

subject matter expertise with pedagogy to enhance teaching effectiveness. The specific mention of methods like Kodály, Suzuki, Orff, Ward, and Dalcroze points to a preference for established, research-based instructional approaches that have successfully fostered musical understanding and skills.

The consistency of these results with Manila (2020) further validates the critical relevance of PCK in music education. Manila emphasised that a deficiency in PCK could hinder the effectiveness of teaching and learning processes, thereby negatively impacting student outcomes. It underscores the importance of educators possessing extensive knowledge of music theory and curriculum and being adept in employing specialised instructional methods.

Learning Environment

The consensus on the importance of an inclusive learning environment (W=0.840, p<0.01) points to the necessity of adapting teaching strategies to meet diverse needs to create a setting where all students feel supported and engaged. For elementary music education, an inclusive environment enables students to participate fully and express themselves, foundational for developing appreciation and self-confidence in music. This competency connects with Social Learning Theory (Bandura, 1971) by highlighting the teacher's role in fostering a supportive space for shared learning, helping students of all abilities participate in music-making activities.

According to Palei (2024), an inclusive classroom encourages a sense of belonging and self-worth, which is essential for student growth. Teachers who can create welcoming, adaptable spaces allow students to explore music freely, thus supporting their personal and social development through music.

Learning Resources

Using musical instruments and creating instructional materials tailored to student needs were identified as critical competencies in the learning resources domain (W=0.688, p<0.01). This finding highlights the role of physical and material resources in enriching music instruction and achieving curricular objectives. Access to instruments and hands-on materials allows teachers to facilitate a constructive learning process where students actively engage with musical elements, a method grounded in Constructivist Theory (Bruner, 1966; Piaget, 1977). For Grades 4 to 6, the use of diverse resources enables students to explore music theory and practice in more depth, supporting their acquisition of fundamental musical knowledge.

Furthermore, this emphasises the use of actual musical instruments as the most essential instructional material in teaching music, which necessitates teachers' skills in playing these instruments. Begic et al. (2017) underscored the importance of this competency, noting that to teach music effectively at the primary level, a teacher should be able to play a musical instrument. Similarly, Asingwire et al. (2023) found that using musical instruments in teaching positively affected student learning outcomes, particularly in terms of their academic performance, creativity, memory, and spatial-temporal skills. Moreover, the findings align with the study of Dulay (2023), which pointed out that effective teachers should be creative and innovative in looking for various ways to teach and respond to the needs of pupils.

Personal and Professional Attributes

Key competencies emphasised in this domain included willingness to learn, patience, and resourcefulness. Among the three competencies, the willingness to learn and be trained to acquire new skills and knowledge emerged as the most essential competency. The strong consensus among participants (W=0.868, p<0.01) in Round 3 reinforces the collective recognition of these qualities as essential for effective teaching. For elementary teachers, who are often generalists rather than music specialists, this finding suggests that professional development is essential for enhancing their music teaching skills. However, the effectiveness of such training heavily relies on the teachers' openness and positive attitude towards learning new skills and knowledge. According to Dulay (2023), to become an excellent teacher, one must prioritise continuing professional and personal development and keeping up with the most recent advancements in teaching approaches and technology. Studies such as those of Augustine et al. (2016) and Julia et al. (2020) emphasised the value of ongoing professional development programmes for non-specialised music educators to help them find new resources, learn new techniques, and assess students to create the best possible music-learning environment for children.

Furthermore, patience is particularly crucial in music education due to its skill-based nature; this can be challenging when many elementary students may not have an innate inclination toward music. This patience helps teachers navigate the diverse levels of student interest and ability. Resourcefulness also plays a significant role, especially in contexts where schools may need more musical equipment, such as instruments; or teachers may require additional support to develop their instrumental skills. In such cases, a resourceful teacher can find creative solutions and alternatives to ensure quality learning despite these limitations.

Developing Cognitive, Affective, and Psychomotor Abilities of Learners

The consensus on competencies related to fostering creativity, self-expression, and self-esteem (W=0.725, p<0.01) supports the idea that music education should cater to the holistic development of learners. This domain emphasises the development of well-rounded individuals and aligns with the learning area standard that includes self-development and cultural celebration. Through structured activities that engage students' cognitive, emotional, and motor skills, teachers help students build

confidence, expressive abilities, and a sense of achievement, which are central goals in K to 10 music education.

These findings support the claim of Robinson (2018) that music teachers have the key to unlocking their pupils' musical abilities. Music educators may encourage students to advance at their own pace by providing inclusive and varied learning environments to encourage a sense of accomplishment and self-efficacy. Exposure to diverse musical activities, including performance, listening, composition, and ensemble work, can boost creativity, self-expression, and confidence. Furthermore, incorporating music into the curriculum can improve interpersonal interactions and create possibilities for personal growth. Finally, these findings highlight the importance of music education in developing well-rounded individuals.

Table 2. Round 2 and 3 Delphi results: Rank order of competencies and level of agreement among participants

Theme/	Competency	Median Rank		Final	Kendall's
Domain		Round 2	Round 3	Rank	W
Musical Skills	A1. Can play musical instruments	1.5	1	1	0.605*
	A2. Can determine the timbre of the	6	6	6	
	voices of learners				
	A3. Can play musical instruments by	3	2.5	2	
	note				
	A4. Can sing by note	4	5	5	
	A5. Can sing properly (e.g., can sing on	3	3.5	3	
	pitch or breathe correctly)				
	A6. Can independently learn to play or	4	4.5	4	
	sing a new song by reading notes or				
	listening to recorded music				
	A7. Can sing in harmony with others	7	7	7	
Culturally	B1. Has knowledge about the culture in	2.5	1	1	0.609*
Responsive	the community and of the learners				
Teaching	B2. Can contextualise the instrument	6	6	6	
	(e.g., can find community resources that				
	match the curriculum's content)				
	B3. Has a repertoire of a variety of	7	7	7	
	music such as foreign, national, and				
	local				
	B4. Uses teaching strategies in	2.5	2	2	
	accordance with students' interest				
	B5. Can design and implement	3	3	3	
	differentiated learning activities to				
	address learners' diversity				
	B6. Can localise and contextualise the	3.5	4	4	
	content of the lesson to make it				
	responsive, relevant, and meaningful to				
	the learners				
	B7. Has knowledge and repertoire of	4	5	5	
	folk songs that can be used in teaching				
Content	C1. Knows music theory	1	1	1	0.734*
Knowledge	C2. Has mastery of the content of	2	2	2	
and Pedagogy	elementary music curriculum				

	C3. Can conduct drills of skills required before teaching the lesson (rhythm	4	4	4	
	drills, melodic drills, etc.) C4. Can conduct song analysis to	6.5	7	7	
	introduce/teach musical elements C5. Uses teaching methods appropriate and exclusive for music education (e.g.,	3	3	3	
	Kodály, Suzuki, Orff, Ward, Dalcroze) C6. Can utilise assessment strategies consistent with the learning outcomes	4	4.5	5	
	C7. Can use songs as a springboard for music lessons	5	5.5	6	
Learning Environment	D1. Can establish a learning environment that is free from fear of judgement	2	2	2	0.840*
	D2. Can set classroom rules that promote/encourage discipline	3	3	3	
	D3. Can establish an inclusive learning environment	1	1	1	
Learning Resources	E1. Uses musical instruments to demonstrate and teach musical skills	1	1	1	0.688*
	and concepts E2. Uses ICT in teaching, particularly web and software applications for	5	5.5	6	
	music E3. Can modify the content of available resources to suit learners' level of	3.5	4	4	
	proficiency in a given lesson E4. Uses technology to aid teaching (e.g., using recorded instruments rather than playing an actual instrument for	4	5	5	
	vocal skills development) E5. Is able to create instructional materials and resource materials based	3	3	2.5	
	on the existing curriculum E6. Is able to create instructional materials and resource materials based on the needs of the learners	3	3	2.5	
Personal and Professional	F1. Is resourceful and can improvise if the needed instrument and/or instructional material is not available	3	3	3	0.868*
Attributes	F2. Is willing to learn and be trained to acquire new skills and knowledge	1	1	1	
	F3. Is patient	2.5	2	2	
	F4. Is able to recognise the talents and	3	4	4	
	potentials of learners and be able to nurture it				
Developing Cognitive, Affective, and	G1. Can design and implement different activities that may develop problemsolving skills of pupils	8	8	8	0.725*
Psychomotor Abilities of Learners	G2. Can design and implement learning experiences that develop learners' creativity	5.5	6	6.5	
Learners	G3. Can design and implement learning experiences that develop learners' love for music	4	3	3.5	

G4. Can design and implement learning experiences that develop learners to actualise their various potentials	3	1	1
G5. Can design an instruction that allows learners to experience the skills being taught	4	3	3.5
G6. Can design and implement learning experiences that allow learners to perform and apply what they have learned from the lesson	3	2	2
G7. Can design and implement learning experiences that allow learners to express their ideas, creativity, as well as emotions	4	3.5	5
G8. Can design and implement learning experiences that would develop the confidence and self-esteem of learners	5.5	6	6.5

^{*}Significant level of agreement at p<0.01

Round 2 shows that musical skills are considered most important based on the median rank. It is followed by content knowledge and pedagogy, while culturally responsive teaching received the lowest rank. They were again asked to rank the domains based on what is most important. Round 3 also presented musical skills as the most crucial domain in teaching music to elementary learners. It was established that experts had a strong and significant agreement on how they ranked the various domains (W=0.757, p<0.01). The final tally shows that having musical skills is the most important domain among the seven domains.

These results corroborate a Delphi study conducted by Begić et al. (2017) on determining necessary musical knowledge and skills for primary teachers. They suggested that for a teacher to successfully teach music in the elementary grades, they should have sufficient skills in singing and in playing musical instruments to accompany singing. The results also show that teachers should know different appropriate musical compositions, be able to lead musical games, and have knowledge and skills of different teaching methods in music.

Table 3. Round 2 and 3 Delphi results: Rank order of domains and level of agreement among participants

Domain	Media	Median Rank		Kendall's W
	Round 2	Round 3	Rank	
1. Musical Skills	1	1	1	0.757*
2. Culturally Responsive Teaching	6	7	7	
Content Knowledge and Pedagogy	2	2	2	
4. Learning Environment	5.5	5	6	
5. Learning Resources	4.5	4.5	4.5	
6. Personal and Professional Attributes	5.5	4.5	4.5	
7. Developing Cognitive, Affective, and	3	3	3	
Psychomotor Abilities of Learners				

^{*}Significant at p<0.01

Conclusion

This Delphi study has effectively identified the core competencies essential for elementary music teachers by exploring the effective practices and insights of experts in music education. The study revealed seven primary domains of competencies: Musical Skills, Culturally Responsive Teaching, Content Knowledge and Pedagogy, Learning Environment, Learning Resources, Personal and Professional Attributes, and Developing Cognitive, Affective, and Psychomotor Abilities of Learners. Together, these domains form a cohesive framework that aligns with constructivist, social learning, and competency-based education models, addressing both subject-specific and general teaching skills essential for elementary music education.

The strong emphasis on musical skills underscores the necessity of instrumental and vocal proficiency, while culturally responsive teaching fosters an inclusive environment that values students' cultural backgrounds. The competencies in content knowledge and pedagogy reflect the need for music-specific instructional strategies, supporting the progressive acquisition of musical knowledge and appreciation in Grades K to 10. Personal and professional attributes emphasise the teacher's role as a lifelong learner, while learning resources and inclusive environments ensure students' diverse needs are met, allowing for meaningful and engaging music experiences. Finally, competencies in developing students' cognitive, affective, and psychomotor abilities underscore the holistic impact of music education on self-expression, creativity, and cultural identity.

This framework provides actionable insights for music teacher preparation and professional development programmes. Future research should refine and validate these competencies through confirmatory factor analysis to develop an assessment tool that measures elementary music teacher effectiveness to further enhance music education quality at the elementary level.

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References

Altun, Z. D. (2010). Exploring effective music teaching strategies of primary school teachers. *Procedia-Social and Behavioral Sciences 9*, 1182-1187. https://doi.org/10.1016/j.sbspro.2010.12.304

Arbabisarjou, A., Siadat, S.A., Hoveida, R., Shahin, A., & Zamani, B.E. (2016). Managerial competencies for chairpersons: A Delphi study. *International Journal of Humanities and Social Sciences*, *3*, 1654-1655.

https://www.semanticscholar.org/paper/Managerial-Competencies-for-Chairpersons % 3A-A-Delphi-Arbabisarjou-

Siadat/b39dc5351a6da528ca0c34df617db7da4ddcc894

- Asingwire, R., Tukamuhenwa, D., Tweheyo, J., Anumaka, I., & Busingye, J. (2023). The impacts of using instruments on learning in post-secondary institutions in Uganda. *International Journal of Academic Multidisciplinary Research*, 7(3), 35-39. https://www.researchgate.net/publication/376082990_The_impacts_of_using_music construments on learning in post-secondary institutions in Uganda
- Augustine, C., & Wong, H. Y. (2016). Music teaching readiness among non-specialised music teachers in government preschools. *Malaysian Music Journal*, *5*(2), 54-69.
- Bandura, A. (1971). *Social learning theory*. General Learning Press. https://www.asecib.ase.ro/mps/Bandura_SocialLearningTheory.pdf
- Begic, J. S., Begic, A., & Skojo, T. (2017). Opinions of university music teachers on the musical competencies necessary for primary education teachers. *International Journal on Higher Education*, 6(1). https://doi.org/10.5430/ijhe.v6n1p197
- Bruner, J. S. (1966). Toward a theory of instruction. Harvard University Press.
- Concina, E. (2023). Effective music teachers and effective music teaching today: A systematic review. *Education Sciences*, 13(2). https://doi.org/10.3390/educsci13020107
- Department of Education. (2016). *Music curriculum guide*. https://www.deped.gov.ph/music-cg/
- Department of Education-Teacher Education Council (2017). *Philippine professional standards for teachers (PPST)*. https://www.deped.gov.ph/wp-content/uploads/2017/08/DO_s2017_042-1.pdf
- Dolan, T. A., & Lauer, D. S. (2001). Delphi study to identify core competencies in geriatric dentistry. *Special Care in Dentistry*, 21(5), 191-197. https://doi.org/10.1111/j.1754-4505.2001.tb00254.x
- Dulay, S. (2023). What makes an effective teacher? Unveiling teachers' perceptions. *Journal of Pedagogical Sociology and Psychology*, *5* (3), 112-130. https://doi.org/10.33902/jpsp.202323606
- Fauth, B., Decristan, J., Decker, A., Büttner, G., Hardy, I., Klieme, E., & Kunter, M. (2019). The effects of teacher competence on student outcomes in elementary science education: The mediating role of teaching quality. *Teaching and Teacher Education*, 86. http://dx.doi.org/10.1016/j.tate.2019.102882
- Fong, S. K., Ch'ng, P. E., & Por, F. P. (2013). Development of ICT competency standard using the Delphi technique. *Prodecia-Social and Behavioral Sciences*, *103*, 299-314. https://doi.org/10.1016/j.sbspro.2013.10.338
- Istiqomah, A. N., Suyatno, S., & Maryani, I. (2019). The effect of teacher competencies on student achievement in vocational high school. *International Journal of Education*, 11(4). https://doi.org/10.5296/ije.v11i4.15625
- Janke, K. K., Kelley, K. A., Sweet, B. V., & Kuba, S. E. (2016). A modified Delphi process to define competencies for assessment leads supporting a doctor of pharmacy program. *American Journal of Pharmaceutical Education*, 80(10), 167. https://doi.org/10.5688/aipe8010167
- Julia, J., Supriyadi, T., & Iswara, P. D. (2020). Training the non-specialist music teacher: Insights from an Indonesian action research study. *Universal Journal of Educational Research*, 8(2), 547-558. https://doi.org/10.13189/ujer.2020.080226.
- Labrador, J. F. (2016). Review of the policies and practices in the implementation of the K to 12 music curriculum. *Malay*, 28(2), 45-56.
- Liu, X., & Wang, J. (2024). A study on the competence of middle school mathematics teachers in Hebei province under the background of craftsmanship spirit. *Nurture*, *18*(2), 456-471. https://doi.org/10.55951/nurture.v18i2.646

- Manila, B. M. (2020). Pedagogical content knowledge in music education among public elementary school teachers. *IOER International Multidisciplinary Research Journal*, 2(3), 1-9. https://doi.org/10.54476/iimrj330
- Millican, J. S., & Forrester, S. H. (2017). Core practices in music teaching: A Delphi expert panel survey. *Journal of Music Teacher Education*, 27(3). https://doi.org/10.1177/1057083717736243
- Mulder, M. (2017). Competence theory and research: A synthesis. In M. Mulder (Ed.), Competence-based vocational and professional education. Bridging the worlds of work and education (pp. 1071-1106). Springer.
- Ozdemir, A. S., & Yalçın, V. (2018). Competencies of mathematics teachers who prepare students to mathematics olympiads. In F. Curtis (Ed.), *Proceedings of the British Society for Research into Learning Mathematics*, 38(3). https://bsrlm.org.uk/wp-content/uploads/2019/02/BSRLM-CP-38-3-16.pdf
- Palei, P. (2024). Inclusive teaching competency for successful implementation of inclusive education. *International Journal for Multidisciplinary Research*, 6(2). https://www.ijfmr.com/papers/2024/2/18455.pdf
- Perez, J. E., & Timbol-Guadalupe, J. (2021). Aweng timek, garaw (sound, voice, movement): Culturally responsive and mother-tongue based music education in the Ilocos region of the Philippines. *Proceedings of the 13th Asia-Pacific Symposium for Music Education*. https://apsmer2021.jmes.me/programmes/abstract/18_A6_8.pdf
- Pestaño, R. D., & Ibarra, F. P. (2021). Pedagogical competencies and classroom anxieties in teaching general music. *Indonesian Research Journal in Education*, *5*(1). https://online-journal.unja.ac.id/irje/article/download/12098/11316/37370
- Piaget, J. (1977). The development of thought: Equilibration of cognitive structures. Viking Press.
- Roa, M. J., & Luzano, R. A. (2023). Competencies and challenges in teaching music. *International Journal of Research Publications*, 123(1). https://doi.org/10.47119/ijrp1001231420234682
- Robinson, J. (2018). Inspiring music teachers: A study of what is important in practice. *Australian Journal of Music Education*, *52*(1), 51-58. https://files.eric.ed.gov/fulltext/EJ1269668.pdf
- Rodriguez-Carranza, A. P. (2016). Living in the moment: The essence of ethnographic fieldwork for teaching music and dance in the elementary and secondary levels. *Musika Jornal*, 12. https://www.academia.edu/download/60937539/Carranza.pdf
- Seloterio, A., & Lopez, E. (2023). Musical competencies and challenges experienced by elementary school teachers in teaching music. *Psychology and Education: A Multidisciplinary Journal*, 8(7), 1-9. http://doi.org/10.5281/zenodo.7913149
- Sever, D. & Bostaci, K. T. (2020). The competencies of science teacher: A Delphi study. *European Journal of Education Studies*, 7(6), 82-112. https://doi.org/10.5281/zenodo.3887330
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14. http://www.jstor.org/stable/1175860
- Silvestre, M. P., & Itaas, E. C. (2020). Lived experiences of teachers teaching music, arts, physical education and health: Implications to graduate education. *International Journal of Innovative Science and Research Technology*, 5(12), 1262-1268. https://ijisrt.com/assets/upload/files/IJISRT20DEC053.pdf

- Sole, G., Skinner, M., Hale, L., & Golding, C. (2019). Developing a framework for teaching clinical reasoning skills to undergraduate physiotherapy students: A Delphi study. *New Zealand Journal of Physiotherapy*, 47(1), 49-58. https://doi.org/10.15619/NZJP/47.1.06
- Staskevica, A. (2019). The importance of competency model development. *Acta Oeconomica Pragensia*, 27(2), 62-71. https://doi.org/10.18267/j.aop.622
- Szczyrba-Poroszewska, J., & Lasota, A. (2023). Musical competencies of teachers of preschool and school-age children. *Edukacja Ustawiczna Doroslych*, *123*(4), 296-303. https://doi.org/10.34866/pgtj-c770
- Vernia Carrasco, A. M. (2018). Competency-based learning: Music education, the great forgotten. In *4th International Conference on Higher Education Advances* (*HEAD'18*) (pp. 29-35). Editorial Universitat Politècnica de València.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (Eds.) Harvard University Press.
- Wong, S. C. (2020). Competency definitions, development and assessment: A brief review. *Research in Progressive Education and Development*, 9(3), 95-114. http://dx.doi.org/10.6007/IJARPED/v9-i3/8223
- Yusof, F. M., & Karim, H. (2011). Developing teacher oral competency framework for secondary school teachers: Moving towards meaningful teaching of English language. *Advances in Language and Literacy Studies*, 2(1). https://doi.org/10.7575/aiac.alls.v.2n.1p.26
- Zand-Moghadam, A., Taheri, M., & Bolouri, M. (2021). Developing a competency model for EAP teachers: Insights from the internationalization of higher education. *Issues in Language Teaching*, *10*(1), 105-146. https://doi.org/10.22054/lit.2021.60017.587

Biographies

Benjie M. Manila is an assistant professor and the coordinator of the Bachelor of Elementary Education programme at the Polytechnic University of the Philippines-Mariveles, Bataan Campus. He has a deep passion for music and music education and possesses extensive experience teaching in elementary school, as well as various musical instruments such as the piano, guitar, and percussion. A former master teacher at the elementary school level, he successfully established an anklung ensemble, showcasing his commitment to cultural and musical education. Currently, he channels his love for music into leading the chorale group at his university. His research interests include elementary music education, Pedagogical Content Knowledge in music education, elementary teacher education, and elementary teaching and learning.

Honey Bert G. Dayanan is an alumnus of the Polytechnic University of the Philippines-Mariveles, Bataan Campus and heads the Office of Student Affairs and Services at the same university. He has a bachelor's degree in elementary education and a Master of Arts in education, with a specialisaton in educational management. He is currently completing his doctorate, focusing on advanced educational research. His dedication to educational excellence and leadership underscores his commitment to advancing teaching practices and administrative strategies.

Gloria S. Santos is a full-pledged professor at the Polytechnic University of the Philippines-Mariveles, Bataan Campus. She holds a Doctor of Education degree with a focus on education management; a master's in business administration; and a bachelor's in business education. Most of the subjects she handles are professional courses within the education programme; however, she also teaches management subjects in business administration and entrepreneurship. Her research focuses not only on the academic performance of students but also on the interplay between instruction and the curriculum, as these may influence the performance of graduates in the workplace.

Samuel A. Quiroz is a PhD candidate at the University of the Philippines, specialising in mathematics education. He earned a Doctor of Education degree in educational management at Bataan Peninsula State University in 2019.