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Competency Level of Physical Education Teachers in Music and Arts: A Framework for Skills Training Development Program

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Abstract

The study investigated the competency levels of MAPEH teachers in Music and Arts in public secondary schools under the Schools Division of Olongapo City during the school year 2024–2025. Grounded in Guskey's Theory of Professional Development, Vygotsky's Constructivist Learning Theory, and Spady's Competency-Based and Outcome-Based Education frameworks, it employed an explanatory sequential mixed-methods design. Quantitative data were collected from 66 purposively selected PE-specialized MAPEH teachers using a validated 5-point Likert-scale questionnaire assessing content knowledge (subject expertise and practical skills), pedagogical skills (teaching strategies and classroom management), and school-related factors (professional development, student engagement, instructional strategies, physical facilities, and administrative support). Data were analyzed using descriptive statistics, independent samples t-tests, one-way ANOVA, Pearson's correlation, and multiple linear regression. Qualitative data from semi-structured interviews underwent thematic analysis. Results showed moderate competency in Music (M = 3.26) and competent levels in Arts (M = 3.85), with stronger pedagogical skills than content knowledge. Professional development and student engagement significantly predicted competency. Age and relevant training attendance significantly influenced Music competency, while sex, educational attainment, length of service, research orientation, media access, and workload showed no significant differences. Qualitative findings revealed resource constraints, non-specialist assignment challenges, limited specialized training, adaptive strategies, and culturally relevant practices. The study proposed the Intensive Music and Arts Competency Enhancement Program (IMACEP) to address these gaps. Findings support SDG 4 (Quality Education) by strengthening teacher capacity for effective Music and Arts instruction and contribute to educational and institutional sustainability through evidence-based professional development that enhances long-term instructional quality, teacher confidence, and resilient arts education delivery.

Keywords: ANOVA; Arts Pedagogy; MAPEH Teacher Competency; Music Pedagogy; Pearson's Correlation; Pedagogical Skills, Professional Development; Qualitative; Quantitative; Schools Division of Olongapo; T-Test; Thematic Analysis

1. Introduction

Music's value extends beyond intrinsic significance to the development of various human competencies. Skills acquired in music classes support learning across subjects. The K–12 framework underscores student-centered, performance-based design requiring competent educators. The MATATAG curriculum seeks to develop intercultural literacy, critical perception, and artistically literate learners equipped for global participation while promoting Filipino cultural heritage. Specialization misalignment in MAPEH instruction undermines these goals,

as PE-specialized teachers often lack specific content knowledge, pedagogical skills, and confidence for nuanced, performance-based Music and Arts teaching, leading to superficial coverage.

Teacher competency combines skills, attitudes, behaviors, and knowledge supporting student development, including mastery of methodologies, classroom management, and discipline-specific expertise. In MAPEH, PE teachers require foundational knowledge in music theory, art appreciation, and creative pedagogy. Bennett and Norman (2020) defined competency in interdisciplinary arts integration as combining physical activities with artistic elements such as music and dance. Nunez (2021) found many PE teachers rely on self-taught knowledge, revealing needs for structured training. Salazar (2022) identified gaps in art and music theory understanding. ERIC Database (2021) highlighted that PE instructors with strong physical education foundations often require additional music and art training. Professional development and administrative support improve competency. Miranda and Lopez (2022) noted leadership-initiated workshops and mentorship enhance confidence and adaptability. Darling-Hammond, Hyler, and Gardner (2017) linked prioritization of teacher development to better student outcomes. Mendoza (2019) asserted adequate funding, curriculum support, and training improve arts education. Salazar and Garcia (2020) and the International Journal of Innovative Science and Research Technology (2020) affirmed organized administrative support strengthens competence.

Instructional strategies strengthen competencies. Velasco and Marquez (2020) proposed competency-based frameworks emphasizing practical application. Kim and Park (2021) and Lee and Tan (2021) examined collaborative models improving performance. Chen and Wang (2021) highlighted constructivist and kinesthetic approaches. Gomez and Tan (2021) and Ramirez (2020) observed reliance on traditional methods. Concina (2023) emphasized resilience, creativity, and pedagogical skill.

Technology integration enhances quality and engagement. Lim and Zhao (2021) found digital media support engaging lessons. Graham and Blackwell (2021) stressed digital literacy. Student engagement contributes to emotional, social, and creative development. Physical facilities and resources are vital. Calderon and Marquez (2020) reported shortages of instruments and materials. Santos (2022) and Reyes (2021) found outdated equipment hinders effectiveness. Mendoza (2021) linked high-quality instruments to stronger outcomes.

Related studies confirmed PE teachers often feel underprepared due to limited formal training and content knowledge (Gomez and Thompson, 2021; Culajara, 2021; Jacinto, 2020). Silvestre and Itaas (2020) stressed professional development needs. De Guzman (2019) and Arazo (2024) highlighted continuous learning. Dulay (2022) and Dalmacio (2023) identified funding, facilities, and proficiency issues. Holden and Button (2020) and Dela Cruz (2021) noted insufficient administrative support. Reyes (2020) recommended competency-based frameworks. Kara (2021) examined TPACK. Patel (2023) emphasized theoretical and hands-on training. Nielsen et al. (2022) and Wang (2024) addressed contextualization and core competencies. Abanador (2024), Roa and Luzano (2023), and Gumaod et al. (2022) linked targeted professional learning to greater competence.

In the Philippine context, PE teachers face challenges teaching Music and Arts within MAPEH due to gaps in training, content mastery, and pedagogical readiness. These contexts underscore the need for contextualized professional development.

The study is grounded on Guskey's (2022) Theory of Professional Development, emphasizing continuous learning opportunities, targeted training, and systematic support aligned with instructional needs and institutional goals, consistent with the Philippine Professional Standards for Teachers (Department of Education, 2019). Vygotsky's (1978) Constructivist Learning Theory posits knowledge construction through experience, collaboration, and reflection within the zone of proximal development, supporting experiential workshops and collaborative teaching. The conceptual framework posits that teachers' profile characteristics and school-related factors (professional development, student engagement, instructional strategies, physical facilities and equipment, administrative support) jointly influence competency levels in content knowledge (subject expertise and practical skills) and pedagogical skills (teaching strategies and classroom and outdoor management), informing a Skills Training Development Program.

While previous studies identified general misalignment, literature lacks systematic investigation of specific competency gaps of PE-specialized teachers measured against MATATAG objectives and performance standards, and no empirically based targeted framework for professional development exists. This study addresses the gap by assessing competency levels, examining school-related factors, identifying challenges and practices, and proposing a Skills Training Development Program for MAPEH teachers in the Schools Division of Olongapo City during school year 2024–2025.

The study aligns with SDG 4 – Quality Education by addressing teacher competency gaps to improve instructional quality in Music and Arts within the MAPEH curriculum, supporting equitable access to effective learning experiences. It also connects to SDG 17 – Partnerships for the Goals through recommendations for collaborative professional development, mentoring, and inter-division sharing of best practices.

The research contributes to educational sustainability by developing a framework for continuous professional development that strengthens teacher capacity, enhances instructional quality, and supports long-term improvement in arts education delivery. It advances institutional sustainability through evidence-based recommendations for school administrators, curriculum implementers, and policymakers to institutionalize targeted training, mentoring, and resource support, fostering resilient teaching practices and sustained student engagement in creative disciplines.

2. Material and methods

2.1 Research Design

The study used a mixed-methods research design that combined quantitative and qualitative approaches to provide a comprehensive understanding of the research problem. This approach addressed the limitations of using either method independently and generated richer and more detailed findings (Almeida, 2018). Specifically, the study followed an explanatory sequential design, in which the quantitative phase preceded the qualitative phase (Toyon, 2021). During the quantitative phase, data were collected on the teachers' competency in Music and Arts, including their knowledge, skills, pedagogical approaches, and school-related factors such as professional development, student engagement, instructional strategies, physical facilities and equipment, and administrative support. A structured questionnaire was used to measure these areas, and the data were analyzed through descriptive statistics, ANOVA, and t-tests. The qualitative phase involved semi-structured interviews that explored the factors affecting teachers' competency, the challenges they encountered, and their professional development needs. The interview data were coded and subjected to thematic analysis to explain and provide context for the quantitative findings. The integrated results informed the proposed Skills Training Development Program for Physical Education teachers assigned to teach Music and Arts.

2.2 Locale of the Study

The study was conducted in public secondary schools within the Schools Division of Olongapo City. It focused on schools where MAPEH teachers were assigned to teach Music and Arts. The study covered eleven secondary schools under the division and examined the competency levels of teachers whose primary specialization was Physical Education.

2.3 Respondents of the Study

The respondents were 66 MAPEH teachers from eleven public secondary schools in the Schools Division of Olongapo City. They were currently teaching Music and Arts and had at least one year of teaching experience in these subjects. Participation was limited to teachers who were willing to participate, provided informed consent, and were employed in public secondary schools within the division. Teachers with less than one year of experience, those who taught only Physical Education and Health, those who were on leave or not actively teaching during the data-gathering period, and teachers from private schools were excluded. These criteria ensured that the data reflected the competency levels of Physical Education teachers who were directly involved in Music and Arts instruction.

2.4 Sample and Sampling Procedure

The study used the entire population of 66 eligible MAPEH teachers as its final sample. Purposive sampling was employed to select participants who met the requirements of the study. This non-random sampling technique allowed the researcher to identify respondents based on characteristics directly related to the research objectives. According to Campbell et al. (2020), purposive sampling supports the consistency and reliability of research findings by ensuring that participants possess the characteristics under investigation. The respondents were selected because they directly handled Music and Arts subjects in public secondary schools within the Schools Division of Olongapo City. Their inclusion ensured that the data represented the actual experiences and competency levels of teachers assigned to teach these areas.

2.5 Research Instrument

The study used a researcher-developed questionnaire to assess the level of musical and artistic competency among Physical Education teachers. The instrument contained sections on the respondents' demographic and professional profiles, competency in Music and Arts, teaching strategies, school-related factors, and training needs. The results of the questionnaire were used in designing the Skills Training Development Program. The questionnaire was developed according to the issues and objectives of the study. It was validated by five experts composed of two MAPEH Master Teachers, one MAPEH Head Teacher, one MAPEH Teacher, and one Doctor of Education Management. Their recommendations were incorporated into the final instrument to establish its face and content validity.

2.6 Data Gathering Procedure

Data gathering followed the explanatory sequential mixed-methods design. In the first phase, the validated questionnaire was distributed to the 66 selected MAPEH teachers. The competency items used a five-point Likert scale, where 5 indicated highly competent, 4 competent, 3 moderately competent, 2 slightly competent, and 1 not competent. For school-related factors, the scale ranged from 5, interpreted as highly sufficient with a mean of 4.21–5.00, to 1, interpreted as not sufficient with a mean of 1.00–1.80. After the quantitative data were collected, selected teachers participated in semi-structured interviews. The interviews examined the factors affecting their competency, the challenges they experienced in teaching Music and Arts, and their professional development needs. With the participants' consent, the interviews were recorded and transcribed for analysis.

2.7 Data Analysis Techniques

Quantitative data from the questionnaires were analyzed using frequency distribution, mean, and standard deviation to summarize the respondents' profiles and competency levels. The t-test and ANOVA were used to determine significant differences in competency levels when the respondents were grouped according to their profiles. Qualitative data from the interviews were analyzed through thematic analysis. QDA Miner Lite was used to assist in coding the transcribed interviews and identifying recurring patterns, themes, and explanations related to competency gaps and professional development needs. The quantitative and qualitative findings were then integrated to develop a comprehensive understanding of the teachers' competencies and to provide the basis for the proposed Skills Training Development Program.

2.8 Ethical Considerations

The study observed ethical standards through responsible data handling, informed consent, confidentiality, anonymity, and voluntary participation. Before data collection, the respondents were informed about the study's objectives, procedures, and their rights as participants. Participation proceeded only after the respondents provided voluntary consent. The identities and personal information of the respondents were protected by excluding identifying details and presenting the findings in aggregated form. The study also maintained academic integrity by accurately acknowledging and citing all sources used in the research.

3. Results and Discussion

3.1 Profile of the Respondents

3.1.1 Demographic and Professional Characteristics

Nearly half of the 66 teachers (48.48%) were aged 20–30 years, with 22.73% aged 31–40, 15.15% aged 41–50, and 13.64% aged 50 and above. Males comprised 53.03% and females 46.97%. Highest educational attainment was primarily bachelor's degree (65.15%), followed by master's degree (18.18%), with MA units (9.09%), and Doctorate (7.58%). Length of service showed 34.85% with 6–10 years, 31.82% with more than 10 years, 18.18% with 3–5 years, and 15.15% with less than 3 years. Over half (53.03%) had not attended relevant training in Music and Arts, while 46.97% had. Research orientation was low, with 72.73% reporting no involvement, 21.21% participating in research activities, and 6.06% conducting related research. Access to educational media was comprehensive for 54.55% (books, online resources, and audio-visual materials). Teaching workloads centered on 6 loads (42.42%), followed by 5 loads (27.27%), 7 loads (21.21%), and 8 loads (9.09%).

The profile indicates an experienced yet youthful workforce with adequate resource access but a critical gap in specialized training and research orientation, providing justification for targeted skills development.

3.2 Teachers' Level of Competency in Music and Arts

3.2.1 Competency in Music

Overall, Music competency was Moderately Competent (M = 3.26). Content knowledge was Moderately Competent (M = 3.01), with subject expertise also Moderately Competent (M = 2.88). Practical skills were Moderately Competent (M = 3.11). Pedagogical skills reached Competent (M = 3.53), driven by teaching strategies (M = 3.49) and especially classroom and outdoor management (M = 3.82). Highest indicators included ensuring active engagement (M = 3.83) and using active learning strategies (M = 3.77). Lowest included playing at least two musical instruments confidently (M = 2.59, Slightly Competent), composition (M = 2.68), and sight-reading (M = 2.83). Teachers applied strong general pedagogical frameworks from PE to Music, where foundational content knowledge was weaker. This imbalance risks prioritizing participation over technical proficiency. Targeted content-focused training in instrumentation, theory, and sight-reading is therefore required.

3.2.2 Competency in Arts

Overall Arts competency was Competent (M = 3.85). Content knowledge was Competent (M = 3.62) and subject expertise Competent (M = 3.71). Practical skills were Competent (M = 3.88). Pedagogical skills were higher (M = 3.97), with teaching strategies (M = 4.02) and classroom and outdoor management (M = 3.98). Strengths included providing independent and group opportunities (M = 4.05) and integrating real-world examples (M = 4.03). Lowest indicators included sculpture techniques (M = 3.35, Moderately Competent) and explaining aesthetics and criticism (M = 3.50). Higher confidence in Arts reflects alignment with PE strengths in movement, performance, and facilitation. Gaps in technical three-dimensional techniques and critical analysis indicate needs for specialized workshops.

3.2.3 Summary of Competency

Overall competency across Music and Arts was Moderately Competent (M = 3.56), with Arts (M = 3.85, Competent) exceeding Music (M = 3.26, Moderately Competent). The disparity arises because Arts' practical and performance-based nature aligns more closely with PE training, while Music demands specialized technical skills less covered in PE programs.

3.3 School-Related Factors

3.3.1 Professional Development

Professional development was rated Sufficient overall (M = 3.49). Encouragement to attend external workshops was higher, while in-school mentorship and hands-on training scored lower. Support was often generic rather than discipline specific. The "sufficient" rating masks limited depth. Generic pedagogical sessions fail to address content gaps of PE-specialized teachers. Sustained, subject-specific coaching is needed.

3.3.2 Student Engagement

Student engagement was Sufficient and highest among factors (M = 4.03). Schools organized events, performances, and extracurricular activities that provided platforms for student talent. Institutional support for participation is strong, yet high engagement does not automatically ensure technical mastery. Meaningful outcomes require pairing participation with structured, high-quality instruction.

3.3.3 Instructional Strategies

Instructional strategies were Sufficient (M = 3.81). Performance and exhibition scored highest (M = 4.02), followed by differentiated instruction. Technology integration was lowest yet still Sufficient. Schools support creative and differentiated approaches, but technology integration remains underdeveloped, indicating needs for digital infrastructure and training.

3.3.4 Physical Facilities and Equipment

Physical facilities and equipment were Sufficient (M = 3.51). Availability of instruments and materials met basic needs, yet shared spaces and outdated equipment limited frequency of hands-on experiences. Functional but limited resources constrain specialized instruction.

3.3.5 Administrative Support

Administrative support was Sufficient (M = 3.61) and consistent across Music and Arts. Encouragement for training and funding for materials were present but not highly specialized or sustained. Support meets essential needs yet falls short of long-term strategic programs.

3.3.6 Summary of School-Related Factors

Overall school-related factors were Sufficient (M = 3.67), with student engagement highest and professional development and facilities lowest. A solid foundation exists, but continuous capacity-building and resource upgrading are required for sustained quality.

3.4 Influence of School-Related Factors on Competency

Multiple linear regression showed significant models: Music competency ($R^2 = 0.315$), Arts competency ($R^2 = 0.446$), and overall competency ($R^2 = 0.435$). Professional development and student engagement were significant positive predictors across domains. Instructional strategies showed a significant negative coefficient for Music ($\beta = -0.46$). Physical facilities and administrative support were non-significant. Targeted training and responsive student interaction drive competency gains. The negative instructional-strategies coefficient indicates that generic PE-derived methods may hinder authentic music competency, underscoring need for subject-specific pedagogy.

3.5 Differences in Competency by Profile

3.5.1 Age

Significant differences existed in Music competency ($F = 3.29$, $p = .03$) and overall competency ($F = 2.99$, $p = .04$). Teachers aged 31–40 showed highest Music competency (M = 3.60); those 50 and above showed lowest (M = 2.59). Arts competency showed no significant age difference. Differentiated professional development by career stage is indicated.

3.5.2 Sex

No significant differences appeared by sex in Music, Arts, or overall competency. Male and female teachers demonstrated comparable levels. Gender does not determine competency; training and experience do.

3.5.3 Highest Educational Attainment

No significant differences by educational attainment. Competency was comparable across bachelor's, master's, and doctoral holders. Experiential learning, continuous practice, and applied skills outweigh formal degrees in performance-oriented fields.

3.5.4 Length of Service

No significant differences by length of service. Years of experience alone did not elevate competency. Quality of professional engagement and lifelong learning matter more than tenure.

3.5.5 Training

Significant differences favored trained teachers in Music competency ($t = 3.16$, $p = .002$) and overall competency ($t = 2.01$, $p = .04$). Arts competency showed no significant difference. Music-related training improves technical and pedagogical mastery; Arts competency relies more on creativity and practice.

3.5.6 Research Orientation

No significant differences by research involvement. Research orientation did not translate into higher Music or Arts competency. Artistic and musical competence is primarily experiential rather than research-driven.

3.5.7 Access to Educational Media

No significant differences by type of media access. Diverse resources showed slightly higher means, but differences were non-significant. Media access alone is insufficient without hands-on, skill-based training.

3.5.8 Workloads

No significant differences by number of teaching loads. Competency remained comparable across 5–8 loads. Effective time management, motivation, and institutional support mitigate workload effects.

3.6 Thematic Analysis

Five themes emerged. Resource and facility constraints were chronic; teachers improvised with recycled materials and borrowed instruments. Teacher competency and confidence gaps arose from non-specialist assignments, prompting self-directed online learning. Professional development needs centered on hands-on, continuous, modular, and peer-mentored training. Adaptive strategies included body percussion, recycled materials, and mobile multimedia. Cultural relevance increased engagement when local traditions and indigenous forms were integrated. Younger teachers and those with limited formal MAPEH preparation faced heightened challenges yet demonstrated digital adaptability. The proposed Intensive Music and Arts Competency Enhancement Program (IMACEP) addresses these gaps through skills workshops, pedagogy enhancement, digital integration, resource provision, collaborative LAC support, and community linkages, aligned with MATATAG and PPST.

4. Conclusion & Recommendations

Non-specialist MAPEH teachers, predominantly PE majors, demonstrated moderate competency in Music and competent levels in Arts, with strengths in pedagogical skills, classroom management, and active learning but notable gaps in content knowledge, technical skills, and specialized training. Professional development and student engagement significantly predicted competency, while age and training attendance influenced Music competency; other profile variables showed no significant differences. Qualitative findings confirmed resource constraints, confidence gaps, and adaptive practices, underscoring the need for targeted, hands-on professional development. The proposed Intensive Music and Arts Competency Enhancement Program provides a structured response to these identified needs.

The Schools Division of Olongapo City should implement the proposed Skills Training Development Program emphasizing content mastery and pedagogical approaches for non-specialist teachers; curriculum implementers should review assignment practices and institutionalize mentoring and resource support; school administrators should establish Learning Action Cells for collaborative planning and demonstration; DepEd should integrate continuous Music and Arts professional development aligned with PPST into the annual INSET calendar; teachers should pursue further specialized training; the Division should collaborate with neighboring divisions for joint workshops and expert resource persons; and future researchers should expand the study to private institutions, examine impacts on student outcomes, and evaluate long-term effects of the training program.

5. Compliance with ethical standards

The study adhered to established ethical guidelines to ensure integrity and credibility. Informed consent was obtained from all participants after a comprehensive briefing on the study's objectives and procedures. Participation was voluntary. Confidentiality and anonymity were strictly maintained by withholding personal information and presenting only aggregated data in reports. Responsible data handling was observed throughout the research process, and academic integrity was upheld through accurate citation of all sources.

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