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Music Theory Learning in Performing Arts Education: Pedagogical and Aesthetic Perspectives

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ABSTRACT

Music theory learning is a conceptual foundation in performing arts education, but in practice it is often perceived as an abstract subject that is detached from students' artistic experiences. This study aims to examine music theory learning from a pedagogical and aesthetic perspective and to formulate principles for its development based on a praxial music education framework and humanistic pedagogy. This study uses a descriptive qualitative approach based on classes of students in the performing arts education study program, with the researcher acting as a practitioner-researcher who conducts systematic observation and reflection on the learning process. Data were collected through classroom observation, student reflective journals, semi-structured interviews, and analysis of learning documents, then analyzed using thematic analysis techniques. The results showed that the integration of theoretical concepts with musical practice, aesthetic reflection, pedagogical dialogue, the use of digital technology, and cultural relevance transformed music theory from procedural knowledge into musical meaning-making practice. This approach improves students' aesthetic sensitivity while strengthening the construction of their professional identity as prospective art educators. This study confirms that music theory learning is designed in an integrative and contextual manner as an epistemic and humanistic practice, transcending its traditional function as mere transmission of structural knowledge.

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1. INTRODUCTION

Music theory learning occupies a fundamental position in the Performing Arts Education Study Program curriculum because it serves as a conceptual foundation for all musical activities, whether performative, creative, or pedagogical. Through music theory, students are introduced to sound representation systems that include notation, rhythm, melody, harmony, and musical form, enabling them to understand how music is constructed, interpreted, and communicated professionally. In the context of educating future arts teachers, music theory not only functions as a structural analysis tool, but also as a pedagogical language that enables students to explain musical phenomena systematically and reflectively to future students [8], [26].

Various studies show that mastery of music theory correlates with the quality of structural understanding, accuracy of interpretation, and the ability to design coherent and meaningful music learning. Emphasize that music educators with a strong theoretical foundation tend to be better able to integrate auditory experiences with conceptual reasoning, so that the learning process does not stop at imitation but develops into reflective understanding [2]. Findings also show that theoretical understanding improves students' ability to connect musical concepts with creative practices such as arrangement and improvisation. Therefore, music theory cannot be positioned as a complementary course, but rather as the epistemological foundation of performing arts education [21].

The teaching of music theory in higher education, however, still faces the classic problem of a weak connection between theoretical concepts and students' musical experiences. Music theory courses are often perceived as learning spaces dominated by symbols, rules, and abstract written exercises, thus separated from the musical reality experienced by students in practice classes, ensembles, or performances. Note that pedagogical approaches that are overly oriented toward the transmission of formal knowledge have the potential to reduce students' intrinsic motivation and foster defensive attitudes toward musical theory material [13].

This issue becomes even more complex in the context of performing arts education, which inherently requires the integration of cognitive mastery, practical skills, and artistic sensitivity as a single set of professional competencies. Arts education is not aimed solely at producing individuals who are able to play or explain music technically, but rather at forming artistic-pedagogical subjects who have aesthetic awareness, reflective capacity, and the ability to understand music as a cultural, social, and human expression. Assert that arts education contributes significantly to the development of interpretive skills, emotional sensitivity, and reflective thinking, which cannot be achieved through a technocratic approach alone [11]. In this framework, music theory should function as a conceptual vehicle that deepens students' understanding of musical meaning, rather than merely as a structural classification device.

In line with these demands, recent developments in the philosophy of music education show a paradigm shift away from mechanistic and behavioristic approaches towards praxial and humanistic approaches that place music as a meaningful social practice. View music learning as a participatory process involving musical action, critical reflection, and identity formation through social and cultural interaction [8]. In this paradigm, music theory is no longer positioned as a normative system of rules that stands outside of experience, but rather as a conceptual instrument for consciously interpreting, evaluating, and developing musical practice. Thus, mastery of music theory is understood not only as an academic achievement, but as an integral part of shaping students' musical and pedagogical thinking.

Contemporary higher education dynamics are further characterized by accelerated digital transformation and increasing heterogeneity in students' socio-cultural backgrounds, which directly influence how musical knowledge is produced, studied, and interpreted. Emphasize that learning that ignores the cultural context of students' risks reproducing hierarchical and exclusive knowledge relations [10], [12]. Music theory education can give rise to tokenistic practices, where musical diversity is only presented symbolically without being epistemologically integrated into the learning structure. As a result, music theory loses its formative power as a means of meaning-making and instead functions as an instrument for reproducing dominant musical norms that are detached from the reality of students' experiences.

Based on this configuration of issues, this article aims to analyze music theory learning in performing arts education from pedagogical and aesthetic perspectives, while also formulating principles for its

development that are responsive to the complex demands of contemporary arts education. This study aims to explain how music theory learning can be designed as an integrative space that bridges the gap between theory and practice, structure and meaning, as well as technical competence and the formation of the professional identity of prospective art educators. Thus, music theory is no longer understood as an isolated domain of knowledge, but rather as an intellectual and cultural medium that plays a strategic role in shaping reflective, aesthetically sensitive art educators who are rooted in their socio-cultural context.

2. LITERATURE REVIEW

2.1 Music Theory as Musical Literacy and Professional Language.

Within the context of performing arts education, music theory is increasingly understood as a form of advanced musical literacy, namely the capacity to read, interpret, produce, and communicate sound structures through a system of symbols, concepts, and musical relationships that are institutionalized in academic traditions and professional practices. This literacy is not limited to the ability to read notation, but includes musical thinking, a way of thinking that allows individuals to connect auditory perception, kinesthetic experience, and conceptual representation in a reflective and critical manner [26], [27].

The latest research in music psychology and music education shows that musical literacy plays an important role in shaping students' deep structural understanding and metacognitive abilities in monitoring and regulating their own musical thinking processes [13], [21]. The music theory serves as a cognitive tool that helps students transform their temporal and intuitive sound experiences into conceptual knowledge that can be analyzed, discussed, and taught systematically.

In praxial music education philosophy, musical knowledge is not viewed as an abstract entity separate from practice, but rather as the result of a dialectic between musical action, social interaction, and critical reflection on that experience [8], [9]. From this perspective, music theory is positioned as working knowledge, operational knowledge that is continuously constructed and revised through actual musical practice. This position emphasizes that theoretical concepts acquire their pedagogical meaning not through formal memorization, but through their use in understanding, evaluating, and developing musical actions in various performative and educational contexts.

This approach is also in line with sociocultural perspectives that see music as a meaningful practice within communities, so music theory works as a reflective language for interpreting these practices [15]. Music theory thus serves not only as a structural classification system, but also as an epistemological medium that connects individual musical experiences with academic discourse and broader cultural values.

As a professional language, music theory has a strategic position in shaping the pedagogical competence of

prospective arts educators. Emphasize that the ability to explain musical structures systematically is the foundation of professional communication in music education [2]. More recent findings indicate that music educators with strong theoretical literacy tend to be more effective in designing learning, providing conceptual feedback, and adapting teaching strategies to the cognitive needs of students [4], [16].

Without mastery of this theoretical language, music teaching risks becoming trapped in patterns of transmission based solely on imitation and demonstration, which are difficult to transfer to diverse and complex learning situations. Therefore, music theory not only builds analytical skills, but also shapes the professional legitimacy of an arts educator in academic, institutional, and social spaces. In performing arts education, this legitimacy is crucial because graduates are expected to be competent not only as practitioners, but also as mediators of musical knowledge who are reflective and pedagogically responsible.

2.2 The Theory–Practice Gap and the Problem of Abstraction in Music Theory Learning

Despite music theory's strategic epistemological role, its teaching practice in higher education is still often characterized by a disconnect between formal concepts and students' musical experiences. Several studies show that students often develop a shallow declarative understanding, able to name terms or complete symbolic exercises but struggling to apply these concepts in the context of performance, repertoire analysis, or design [13].

Current research in cognitive music education shows that learning musical concepts will be more stable and transferable if directly linked to meaningful auditory and performative contexts [2], [14]. Without this connection, students tend to memorize harmonic patterns or formal structures without understanding their musical and expressive functions.

Moreover, excessive abstraction in music theory learning has the potential to erode students' affective and aesthetic dimensions. Music is reduced to an object of structural analysis, rather than a valuable experience. This reduction contradicts the nature of performing arts education, which requires an integration of conceptual understanding, artistic skills, and aesthetic sensitivity.

The gap between theory and practice cannot be understood simply as a matter of teaching methods, but rather as a matter of pedagogical paradigms. The reconstruction of music theory learning needs to shift the focus from the transmission of symbolic knowledge to the formation of contextual, reflective, and applicable musical understanding.

2.3 Constructivism, Meaningful Learning, and Constructive Alignment in Music Theory

Constructivism theory views learning as an active process in which students construct knowledge through interaction with the

environment, direct experience, and critical reflection. In the context of music theory, knowledge construction occurs when students engage in listening to, playing, analyzing, and discussing music as a living phenomenon, not merely a symbolic object [6], [20].

Constructive alignment, emphasizes that effective learning requires alignment between learning outcomes, learning activities, and assessment [17]. In music theory learning, this means that the goal of understanding and using musical concepts must be followed by activities such as repertoire analysis, sound exploration, simple composition, and assessment based on musical problem solving.

Contemporary studies show that authentic task-based learning design and conceptual reflection significantly improve structural understanding and long-term retention among music students [7], [19]. Through this approach, music theory is no longer studied as a system of rules, but rather as a tool for interpreting musical reality.

In performing arts education, meaningful learning also has implications for the formation of professional identity. When students understand the conceptual reasons behind musical practices, they become not only performers, but also interpreters and designers of reflective learning.

2.4 Praxial, Aesthetic, and Humanistic Perspectives in Music Education

The praxial perspective views music as a meaningful social practice, where the value of music education lies in the quality of individual participation in real musical activities [8], [9]. The relevance of music theory lies in its ability to help students understand why and how a musical action has a certain artistic and social value.

Meanwhile, the aesthetic perspective emphasizes that music is a valuable experience, not just a formal structure. The goal of music education is to develop an individual's capacity to deeply experience the expressive qualities of music [3]. Music theory, in this context, serves as a conceptual tool to bridge structure and expression.

The humanistic approach expands this framework by placing music education within the context of holistic human development. Links musical practice to human flourishing, which encompasses cognitive, emotional, ethical, and social development through meaningful musical experiences [22]. In performing arts education, this orientation emphasizes that music theory also plays a role in the formation of empathy, social sensitivity, and pedagogical responsibility.

This means that music theory is no longer positioned as a technical discipline, but rather as a space for dialogue between musical structure and human experience. The integration of praxial, aesthetic, and humanistic perspectives allows music theory to function as a medium for cultural and human reflection.

2.5 Digital Technology as a Mediator of Cognition and Musical Representation

Digital transformation has fundamentally changed the way

music theory is studied and taught. Notation software, ear training applications, harmony simulations, and online learning platforms enable the visualization of musical structures that were previously abstract [21], [24].

Recent research shows that the use of visual-auditory technology can improve students' relational understanding of intervals, chord progressions, and musical forms when integrated with reflective discussion [1], [25]. Technology functions as a cognitive scaffold that bridges notation symbols and sound experiences.

That said, the literature also warns that technology is not inherently pedagogical. Without reflective instructional design, technology risks reproducing mechanistic drills in digital form [23]. The pedagogical value of technology lies in its integration into learning strategies that emphasize meaning, not mere efficiency.

2.6 Cultural Relevance and Culturally Sustaining Pedagogy in Music Theory

The discourse on contemporary music education increasingly emphasizes the importance of cultural relevance as the basis for the epistemological legitimacy of learning. Culturally sustaining pedagogy (CSP) demands that education not only accommodate the culture of students, but actively preserve, develop, and transform it as a source of living knowledge [10].

In the teaching of music theory, this approach means that musical concepts are studied through a repertoire that represents the musical ecology of students, including traditional, popular, and religious music. Emphasize that cultural relevance increases cognitive engagement while expanding students' conceptual horizons regarding the plurality of musical systems [5], [12].

This approach also serves as a critique of the dominance of Western paradigms in formal music theory, which are often treated as universal systems. By integrating local contexts, music theory is positioned as a pluralistic and dialogical analytical language.

Based on the overall review above, the theoretical framework of this study was constructed through the integration of five main conceptual foundations, namely: (1) music theory as musical literacy and professional language; (2) reconstruction of the theory-practice relationship through constructivism and constructive alignment; (3) praxial, aesthetic, and humanistic orientations in music education; (4) the use of digital technology as a cognitive and representational mediator; and (5) cultural relevance through a culturally sustaining pedagogy approach.

These five foundations are not positioned as separate domains, but rather as an intertwined conceptual system. Music theory as musical literacy provides an analytical and reflective language that enables students to understand musical structure systematically. However, this literacy only acquires its full pedagogical meaning when it is actualized through concrete musical practice and meaningful

aesthetic experiences. This is where the praxial and aesthetic approaches play a role in bridging symbolic knowledge with musical experience as a living practice.

Constructivism and constructive alignment then provide a pedagogical framework that ensures that music theory learning does not stop at the transmission of concepts but develops as a process of meaning formation through authentic activities, reflection, and self-evaluation. In the context of performing arts education, this process is very important because learning is not only aimed at producing cognitive understanding, but also at forming mature artistic and pedagogical dispositions.

Digital technology is understood not only as a technical instrument, but also as a cognitive artifact that expands students' representational capacities. Visualization of musical structures, sound simulation, and manipulation of notation symbols enable students to build bridges between theoretical abstractions and auditory experiences. As contemporary literature demonstrates, however, the mediative function of technology is only effective when accompanied by reflective pedagogical design that places human interpretation at the center of the learning process.

The cultural dimension then expands this framework by placing students' musical experiences as a valid epistemological source. The culturally sustaining pedagogy approach emphasizes that music theory cannot be treated as a universal, ahistorical system, but rather as an analytical language that must engage in dialogue with a plurality of musical practices. Within this framework, music theory learning becomes a meeting ground between academic knowledge and local musical traditions, between formal structures and social meanings.

Conceptually, this synthesis positions music theory learning as a complex pedagogical practice that is multidimensional: cognitive, affective, social, cultural, and professional. Music theory is no longer understood as a set of structural rules, but as an epistemic device that shapes how students think about music, interpret aesthetic experiences, and construct their professional identities as prospective arts educators.

The theoretical framework of this study thus serves not only as a basis for empirical analysis, but also as a conceptual proposition regarding the direction of music theory education in higher arts education. Music theory learning is viewed as a space for the formation of pedagogical subjects who are reflective, conceptually competent, aesthetically sensitive, and culturally responsible. This framework is then used to interpret the research findings and formulate pedagogical implications in the results and discussion sections.

3. METHODS

This study uses a descriptive qualitative approach based on class. The author acts as both a teacher and researcher,

applying reflexivity and data triangulation to minimize bias [18], [29]. Participants in the study were students of the Performing Arts Education Study Program who were taking music theory courses in the current semester. Participation was voluntary and preceded by informed consent. The identities of participants were kept confidential, and the data was used solely for academic purposes. Data was collected through observation of the learning process, student reflective journals, brief semi-structured interviews, and analysis of learning documents (RPS, assignments, and teaching materials). Data analysis was conducted using thematic analysis through the stages of open coding, categorization, and theme extraction [28]. Data validity was maintained through source triangulation and audit trails.

4. RESULTS AND DISCUSSION

4.1 Reconceptualizing Music Theory as Meaningful Practice

The results of the study show that students experience a substantive shift in the way they interpret music theory, from mechanistic procedural knowledge to interpretive tools that are actively used to understand and interpret musical practice. In the early stages of the course, music theory is generally perceived as a set of symbolic rules of intervals, scales, chord progressions, and formal structures that must be memorized and accurately reproduced in written exercises. This orientation reflects a transmissive learning model that places concepts as the goal, rather than to build musical understanding.

Given this framework, students tend to separate the activity of "thinking about music" from the experience of "experiencing music". Theory is positioned as a sterile cognitive realm, while musical practice is understood as an intuitive and expressive activity. This separation forms an instrumental relationship with music theory: concepts are studied to meet the demands of academic evaluation, not to deepen the musical experience itself. However, with the implementation of integration between structural analysis, musical practice, and reflective discussion in the classroom, a significant shift in learning orientation occurred. Students began to use theoretical terms and concepts as a language to explain the auditory phenomena they experienced directly, such as harmonic tension and resolution, melodic direction, or the rhythmic character of a phrase. One student stated:

> "I used to think music theory was just formulas. Now I understand why the progression feels complete or unfinished."

This statement not only demonstrates an increase in conceptual understanding but also marks an epistemological transformation: music theory is no longer understood as a system of external rules, but rather as a cognitive tool for giving meaning to musical experiences. In other words, theoretical concepts function as a medium of interpretation, not merely as objects to be memorized. This finding is in line with the idea of working knowledge in praxial music education philosophy, which places theory as operational knowledge that lives in practice, continuously tested, revised, and deepened through musical action [8]. From this perspective, the value of music theory lies not solely in its terminological accuracy, but in its ability to help individuals understand why a sound may sound stable, ambiguous, tense, or expressive in a particular context.

Conceptually, this change marks a repositioning of music theory from an isolated cognitive domain to an epistemic practice integrated with auditory and kinesthetic experiences. Music theory becomes part of how students "exist within music", rather than simply a way of talking about music from the outside. This change also indicates a shift from outcome-oriented learning to process-oriented learning. The pedagogical implications of these findings are significant. Music theory learning needs to be designed in response to students' musical experiences, rather than as an abstract prerequisite that precedes practice. The concept is introduced and explored through real musical problems

that are heard, played, and felt, allowing students to build an internal relationship with musical structures. Thus, music theory serves as a bridge between aesthetic experience and intellectual reflection, as well as a foundation for the formation of mature and professional musical thinking.

4.2 Integration of Cognitive, Affective, and Aesthetic Dimensions

Music theory learning that links structural analysis with listening and playing music has been shown to encourage student engagement not only at the cognitive level, but also in the affective and aesthetic realms. In this type of learning situation, concepts such as harmony, rhythm, and musical form are no longer understood merely as technical entities separate from artistic experience, but rather as expressive devices that shape the character, direction, and musical meaning of a work. Students begin to view musical structure as something that is "alive" in sound, not just a series of symbols on paper. This change in orientation is reflected in the following student reflections:

> "If I only work on problems on paper, I forget quickly. But when we analyze songs and play the harmony parts, the concepts stick better."

This statement shows that conceptual understanding becomes more stable when students associate symbolic representations with auditory and kinesthetic experiences. The integration of listening, playing, and analyzing allows theoretical concepts to function as an interpretive framework for musical reality, rather than as abstract information that stands alone. This finding confirms the close connection between the cognitive and affective domains, which is a fundamental characteristic of arts education. From an aesthetic perspective, music theory serves as a bridge between formal structure and the experience of value, namely the expressive qualities felt in interaction with sound [3]. Structure is no longer understood as the ultimate goal, but as a medium that enables the emergence of meaningful musical experiences.

From a humanistic perspective, students' emotional involvement in understanding musical concepts strengthens intrinsic motivation and builds a personal relationship with music as part of their life experience, not merely as an object of academic study [22]. Students do not only learn "about" music, but learn "through" music, so that cognitive and affective processes occur simultaneously and reinforce each other.

More specifically, the integration of cognitive and affective dimensions shifts students' learning orientation from a defensive pattern focused on avoiding mistakes to an exploratory pattern that treats mistakes as a source of learning. Inaccuracies in analyzing or playing a musical structure are treated as material for reflection and discussion, rather than as personal failures. Such a learning climate encourages courage to experiment, intellectual openness, and a reflective attitude towards the learning process itself.

In the long term, this condition contributes to the formation of a healthy academic habitus in performing arts education, where students view music theory learning as a space for dialogue between structure and expression, between reason and feeling, and between analytical precision and artistic sensitivity. It is this integration that allows music theory to function holistically as both a conceptual foundation and a medium for the formation of profound aesthetic experiences.

4.3 The Formation of Professional Identity for Prospective Art Educators

This study found that music theory learning not only had an impact on improving students' conceptual understanding but also contributed significantly to the formation of their professional identity as prospective arts educators. In an integrative and reflective learning process, music theory began to be understood not merely as a curricular requirement or academic prerequisite, but as

pedagogical capital that determines the quality of musical communication in the classroom.

This transformation is reflected in the following statement by one of the students:

> "Now I realize that theory is important in order to explain music to students, not just tell them the rules."

This statement indicates a shift in students' orientation from passive learners to pedagogical subjects who are aware of their professional responsibilities. Music theory is no longer seen as a set of external rules, but as a conceptual language that allows them to explain musical phenomena rationally, dialogically, and academically accountable. This awareness indicates the formation of a pedagogical self-concept, which is how individuals position themselves as mediators of musical knowledge between works, cultural contexts, and students. In literature on music education, the formation of pedagogical self-concept is viewed as a crucial stage in the professionalization process of teachers, as it influences how prospective educators design learning, provide feedback, and build epistemic authority in front of students [2], [4].

Music theory also functions as epistemic capital that provides pedagogical legitimacy in the formal education ecosystem. Mastery of musical concepts enables prospective educators to not only demonstrate skills, but also articulate the musical reasoning behind a practice, justify artistic choices, and adapt learning strategies to the cognitive development level of students. In this context, the professionalism of arts educators is not determined solely by performative skills, but by the ability to integrate theoretical knowledge with pedagogical sensitivity.

Music theory education serves as a space for professional identity formation, where students learn to see themselves not only as musicians or artists, but as educators with conceptual authority, ethical responsibility, and a commitment to meaningful learning. This process reinforces the argument that music theory, when taught reflectively and contextually, is an important foundation for the emergence of arts educators who are not only technically competent, but also intellectually and pedagogically mature.

4.4 Reflection and Pedagogical Dialogue as Mechanisms for Internalizing Knowledge

Analysis of students' reflective journals and classroom discussion dynamics shows that pedagogical reflection plays a central role in the process of internalizing music theory concepts. Students who consciously write down their thought processes, conceptual doubts, and interpretive difficulties tend to demonstrate a more stable, structured, and integrated understanding than those who only passively follow the learning process. The process of writing and reflecting on learning experiences allows students to transfer knowledge from the implicit level to a conceptual awareness that can be controlled and developed independently.

This is reflected in the following statement by a student:

> "Writing a journal after class helps me to understand more clearly the parts of music theory that I don't understand yet, while also exploring where my confusion lies and what I need to learn more about."

This statement marks the emergence of metacognitive awareness, which is the ability of individuals to monitor, evaluate, and regulate their own learning processes. In the context of music theory learning, this awareness is important because it allows students to specifically identify musical concepts that they do not yet understand, while also formulating strategies to deepen their understanding.

From an epistemological perspective, reflection functions as a mechanism that transforms declarative knowledge, simply knowing terms or rules, into relational and

applicable conceptual understanding. This process is in line with meaningful learning theory, which places dialogue and reflection as the main means of knowledge construction, rather than merely memory reinforcement [17], [20]. Through reflection, musical theory concepts no longer stand as separate pieces of information but are woven into a network of meanings connected to concrete musical experiences.

In addition to individual reflection, pedagogical dialogue in the classroom also serves as a space for negotiating musical meaning. Discussions about harmonic choices, structural interpretations, or the expressive character of a work allow students to test their understanding in social interaction, accept alternative perspectives, and revise their initial assumptions. This process enriches conceptual understanding while building an open and critical intellectual disposition.

The pedagogical dialogue further shifts the lecturer-student relationship from a one-way transmission pattern to a dialogical intellectual partnership. Lecturers are not merely positioned as authorities of knowledge, but as facilitators of the process of interpretation and meaning formation. This relationship is in line with the character of arts education as an interpretive practice, where musical understanding is built through the exchange of ideas, aesthetic arguments, and shared reflection.

Reflection and dialogue cannot be viewed as additional or complementary activities, but rather as cognitive and pedagogical infrastructure that enables music theory to function as living, flexible, and meaningful knowledge for students. It is through this mechanism that music theory learning contributes to the formation of autonomous, reflective learners who can consciously integrate musical structures with aesthetic experiences.

4.5 Digital Technology as a Mediator of Musical Cognition

The results of the study show that the use of notation software and audio-visual media plays an important role in helping students understand the relationship between musical symbols and their sound realization. Through the simultaneous visualization of harmonic progressions, phrase structures, and musical forms with audio playback, students can build a more coherent mental representation of how abstract structures are manifested in auditory experiences. In this context, technology serves as a cognitive bridge that connects the symbolic world of music theory with the temporal and dynamic phenomena of sound.

Students revealed that the visual display of digital scores integrated with audio playback helped them to both "see" and "hear" the relationships between musical elements in concrete terms. This process strengthened their relational understanding, rather than merely their recognition of terminology. In other words, technology facilitated the formation of cognitive schemas that enabled students to interpret musical structures as meaningful systems, rather than mere collections of symbols.

However, students also showed critical awareness of the limitations of using technology without adequate pedagogical guidance. One student stated:

> "The application does help to see and hear the structure of the music more clearly, but if it is only used to click and follow technical steps without discussion or reflection together, it feels like mechanical practice that does not really help me understand the meaning of the music."

This statement indicates that interaction with technology can easily be reduced to procedural activities if it is not integrated with conceptual discussion and musical reflection. Without an interpretive framework, digital visualization has the potential to reinforce the mechanistic learning patterns that humanistic music theory education seeks to avoid.

This finding confirms that technology is not inherently pedagogical. Its educational value is determined by how it is integrated into learning design. In line, digital

technology is most effective when positioned as a tool to trigger musical dialogue, exploration of meaning, and critical reflection on structure and expression, rather than merely as a means of accelerating technical practice [1], [24].

In this context, technology functions as a mediator of musical cognition, a tool that expands students' capacity to consciously model, manipulate, and interpret musical phenomena. This mediating role enables students to develop a deeper understanding of the relationship between notation, sound, and expression, while sharpening their analytical skills as future arts educators.

As such, the use of technology in music theory learning needs to be designed in a reflective and dialogical manner. Technology should not replace the process of human interpretation but rather support it by providing visual and auditory spaces that enrich the musical thinking process. When used within an appropriate pedagogical framework, technology not only increases learning efficiency, but also deepens the quality of students' understanding and aesthetic experience.

4.6 Cultural Relevance and the Deconstruction of Tokenism

Integrating repertoire that is familiar to students' musical experiences has been shown to increase cognitive and affective engagement while deepening the quality of conceptual discussions in class. When students analyze works that they are culturally and emotionally familiar with, the process of theoretical abstraction no longer feels foreign, but rather is rooted in their existing musical experiences. One student stated:

> "When we use regional songs as examples to discuss rhythm, I find it easier to understand the patterns because the music has been familiar to my ears for a long time."

This statement shows that cultural proximity functions as a cognitive anchor that facilitates mapping between the symbolic structures of music theory and the reality of sound that is meaningful to students. The concepts of rhythm, meter, or phrase patterns are not studied as ahistorical universal schemes, but rather as musical phenomena that exist within specific cultural practices.

This finding reinforces the framework of culturally sustaining pedagogy (CSP), which asserts that the culture of learners should be positioned as a legitimate and dynamic source of knowledge, not merely a curricular ornament or peripheral illustration [10], [12]. In this context, music theory functions as a conceptual language for reading, comparing, and interpreting the diversity of musical practices, as well as a medium for dialogue between local musical systems and global academic discourse.

Going further, this approach helps avoid tokenistic learning practices, which involve the symbolic use of local music without conceptual depth, replacing them with substantive integration between repertoire, concepts, and critical reflection. Students not only recognize musical diversity as a cultural fact, but also understand its internal logic, social function, and accompanying aesthetic value.

In this way, music theory learning based on cultural relevance not only increases pedagogical effectiveness but also broadens students' epistemological horizons towards the plurality of musical systems. This process contributes to the formation of prospective art educators who are able to view music theory as an analytical language that is inclusive, contextual, and open to diversity, rather than as a single system that is normative and hegemonic.

5. CONCLUSION

This study shows that music theory learning designed to be integrative, reflective, and contextual can transform music theory from procedural knowledge into meaningful musical practice. The integration of structural analysis, musical practice, pedagogical reflection, the use of digital technology, and cultural relevance has been proven to deepen students' conceptual understanding, enhance

their aesthetic sensitivity, and support the formation of their professional identity as future arts educators.

This finding confirms that music theory cannot be reduced to a mere technical tool but rather has a strategic epistemic and humanistic function in performing arts education. Music theory serves as a conceptual language that bridges musical structure, aesthetic experience, and pedagogical responsibility.

The development of music theory learning in higher arts education should be guided by pedagogical designs that prioritize authentic musical experiences, reflective dialogue, and the cultural context of students as the core of the learning process. This approach is expected to produce arts educators who are not only technically competent but also reflective, communicative, and sensitive to the diversity of musical practices in educational settings and society.

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