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## From Musical Analysis to Prompt Writing: Generative AI as a Scaffold for Students' Music Perception

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### Abstract

Generative artificial intelligence tools capable of producing audio from text prompts are entering music classrooms at a pace that outstrips pedagogical deliberation. Their most common framing — AI as a shortcut to musical output that otherwise demands technical and notational competence — allows the analytical and listening work that constitutes the core of music education to be displaced. This chapter develops an alternative framing, grounded in a didactic experience carried out within the *Proyecto Prometeo* programme at the Universidad de Murcia. The pedagogical sequence moves structured analytical listening of five Chopin's *Nocturnes* into the writing of a structured prompt, and the AI-generated output into the object of a second, critical analytical listening. The experience is discussed as a proposal for a critical use of generative AI that expands rather than curtails students' analytical musical competence, with attention to its adaptability across educational levels.

*Keywords:* generative AI; music education; musical analysis; prompt writing; active listening.

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## Del análisis musical a la escritura de prompts: la inteligencia artificial generativa como andamiaje para la percepción musical de los estudiantes

### Resumen

Las herramientas de inteligencia artificial generativa capaces de producir audio a partir de instrucciones textuales comienzan a irrumpir en las aulas de música a una velocidad superior a la de la reflexión pedagógica. Su uso más habitual —la IA como atajo hacia un producto musical que exigiría competencia técnica y notacional— permite desplazar el trabajo analítico y de escucha que constituye el núcleo de la educación musical. Este capítulo desarrolla un encuadre alternativo a partir de una experiencia didáctica realizada en el Proyecto Prometeo de la Universidad de Murcia. La secuencia orienta la escucha analítica estructurada de una selección de cinco *Nocturnos* de Chopin hacia la escritura de un prompt estructurado y convierte el resultado generado por la IA en objeto de una segunda escucha analítica crítica. La experiencia se discute como propuesta de uso crítico de la IA generativa que fomenta en lugar de limitar la competencia analítica musical del alumnado, con atención a su adaptabilidad entre niveles educativos.

*Palabras clave:* IA generativa; educación musical; análisis musical; escritura de prompts; escucha activa.

### Introduction

Musical creation in the classroom rests on a paradox that teachers routinely encounter. The curricular expectation is that students engage with creation as a cognitive and expressive act; the practical reality is that most students arrive at the creation task without sufficient command of notation, harmonic writing or an instrument to externalise the musical ideas they already possess. The gap between what they can hear or imagine and what they can write is, in the majority of cases, the principal obstacle to sustained compositional work in the classroom (Devaney *et al.*, 2023). That gap was historically bridged by lowering the technical threshold of the task: graphic scores, percussion ostinatos, loop-based digital sequencing. Generative artificial intelligence now offers a third route — one whose terms of entry are radically different.

Publicly available generative AI platforms produce short audio outputs from natural-language prompts, bypassing notation altogether. Their uptake in schools has been rapid and largely unregulated (Cheng, 2025; Gisbert Caudeli & Vela González, 2024), and their most obvious pedagogical use is also their most impoverished: the AI as shortcut, a device that delivers sonic output without engaging the analytical, structural or listening work that makes musical learning possible. Students are told to describe what they want and accept what they receive; the classroom loses two consecutive phases of cognitive engagement — the articulation of musical intention and the critical evaluation of musical result — for a single brief moment of prompt typing.

This chapter articulates an alternative use of generative AI in the music classroom, grounded in a didactic experience carried out within the 2025–2026 edition of the *Proyecto Prometeo*, a programme of research tutoring for baccalaureate students convened by the Regional Education Department through which the Universidad de Murcia tutors secondary-education students in incipient research projects. The experience, which took Chopin's *Nocturnes* as analytical corpus and an audio-generating AI as creation tool, was designed around a single pedagogical hypothesis: if the prompt required to generate a musically credible output is itself the product of rigorous analytical listening, and if the output of the model is itself made the object of a second, comparative analytical listening, then generative AI ceases to function as a bypass and begins to function as a scaffold — a device that absorbs the technical difficulty of notation and writing while intensifying, rather than attenuating, students' analytical and auditive work.

What follows is offered as a documented didactic experience rather than as empirical evidence of learning gains. Its contribution is pedagogical and critical: a sequenceable design and a reflection on the conditions under which generative AI serves the cognitive aims of music education rather than substituting them.

## Theoretical framework

### *Generative AI in music education: state of the debate*

The rapid maturation of deep-learning models for audio and symbolic music generation has produced a field of tools whose technical taxonomy is already relatively well mapped (Civit *et al.*, 2022). The pedagogical literature has lagged. Recent contributions, from both Anglophone and Spanish-speaking research traditions, converge on three observations. First, students' acceptance of AI tools in the music classroom is high and correlates with a perceived compensation of their own technical limitations, particularly in notational competence (Vázquez-Sánchez, 2024). Second, teachers' own uptake is uneven, shaped by familiarity with the technology, confidence in its alignment with the curriculum, and concern over authorship and integrity (Gisbert Caudeli & Vela González, 2024). Third, the field has begun to articulate a specifically ethical critique of generative AI in formal music education, addressing cultural bias, equity of access, originality and the regulation of classroom use (Cheng, 2025).

A further, more practical strand of the literature addresses the didactic uses of conversational AI in music-teaching tasks and foregrounds prompt design as the principal determinant of pedagogical value (Holster, 2024). Running through these strands is a shared diagnosis: the decisive variable is not the tool itself but the task it is embedded in, and the analytical frame that the teacher imposes on it. At a supranational policy level, UNESCO's *Guidance for Generative AI in Education and Research* (Miao & Holmes,

2023) has anchored this discussion in a humanistic framework, articulating age-appropriate use, data-protection requirements and the duty of transparency in the classroom.

### *Prompt writing as an analytical practice*

Prompt engineering — the activity of formulating, refining and iterating textual instructions to a generative model — has consolidated over the last three years as a distinct competence, theorised both as a set of interaction patterns between user and system (White *et al.*, 2023) and as a twenty-first-century skill with transferable cognitive value (Federiakin *et al.*, 2024). Approaches such as the CLEAR framework (Lo, 2023) codify procedural knowledge around concision, logical structure, explicit specification, adaptability and reflective evaluation. Beyond their immediate utility, these frameworks have an under-theorised consequence for music pedagogy: they require students to externalise, in precise verbal form, the knowledge on whose basis the generation is to proceed.

For the production of music in a defined style, this externalisation is not trivial. A musically credible prompt cannot consist of a genre label and a mood tag. It must specify melodic typology, textural profile, harmonic language, formal organisation and rhythmic behaviour, and it must do so with enough specificity that the model can disambiguate its generation. The prompt, in this sense, is analytical writing under pressure: a condensed discursive form into which the listener is obliged to pour everything the listening has yielded. What fails to pass through the analytical filter upstream will not appear downstream; what is vaguely articulated produces vaguely stylised output.

The practical accessibility of this kind of work has shifted markedly in the last academic year. Until recently, generating musical audio required dedicated platforms with dedicated sign-ups, raising thresholds of cost and technical familiarity that were uneven across schools. The incorporation of music-generation features into mainstream conversational AI — such as the music-creation option in Google Gemini used below — has effectively democratised access: a teacher who already uses a conversational AI for general classroom purposes can now invoke its music-generation function within the same interface, without additional accounts or specialist software. The same didactic design is therefore practicable in any classroom with standard digital access, which is precisely what turns the question of pedagogical framing into a pressing one.

This inversion of roles — the prompt as destination of analysis rather than as shortcut around it — alters the pedagogical economy of the task. The technical thresholds historically associated with composition (notation, pianistic writing, harmonic realisation) are absorbed by the model. The cognitive thresholds historically associated with analytical listening (parametric identification, relational interpretation, stylistic judgement) are intensified, because they must now be made linguistically explicit. Students are relieved of the notational task in order to be confronted, more squarely, with the analytical one.

### *Musical creation and analytical listening across educational levels*

The teaching of composition in school settings has accumulated a substantial international literature over the past two decades (Devaney *et al.*, 2023), and converges on a recurring finding: creation flourishes when it is embedded in, rather than isolated from, analytical listening. The imitation of stylistic models — long marginalised in general music pedagogy under suspicion of mechanism — has regained epistemic legitimacy as a route to tacit mastery of style, provided it is mediated by explicit analysis (Méndez Cancelas, 2025). The value of stylistic imitation lies not in the reproduction of surface features but in the operation by which students are obliged to name, categorise and verbalise those features — an operation that is simultaneously analytical and metacognitive (Hallam & Himonides, 2022).

This intersection between creation and analysis is pedagogically productive precisely where it is cognitively demanding. Analytical listening in music education is not reducible to the identification of musical parameters in isolation — melody, harmony, texture, form, rhythm — but requires students to articulate the relations between parameters, the internal logic of a style, and the choices that differentiate one work from another within the same genre. Participatory forms of creation, such as soundtrack composition or collaborative song writing, activate these relational forms of listening (Lage-Gómez *et al.*, 2022); what they have historically lacked, for want of technical means, is direct access to the historical art-music canon as a field of stylistic models for imitative creation.

The compatibility of this approach with competency-based curricula is not incidental. Where curricula are organised around competences rather than content coverage — as is now common across European education systems — the articulation of analytical listening with digital, and increasingly AI-supported, creative practice falls squarely within their remit. The Spanish framework offers a clearly articulated illustration. In compulsory secondary education, the *Real Decreto 217/2022* lists, among the *saberes básicos* (basic knowledge items) of the Music subject, both active listening and perception and a strand explicitly devoted to digital tools for musical creation (*herramientas digitales para la creación musical*), legitimising tasks in which students use digital means to externalise the results of their analysis. In the *Bachillerato* (post-compulsory upper-secondary education), the *Real Decreto 243/2022* is more explicit still: in the subject *Análisis Musical*, active listening and guided formal analysis are coupled with the generation of new musical ideas from previously analysed patterns and the guided use of digital technologies in composition — a competency cluster that maps almost exactly onto the sequence set out below. Such footholds are not unique to Spain, so the design is not contingent on any one curriculum, even where it finds particularly explicit legitimation.

## The didactic experience

### *Institutional context and pedagogical aims*

The experience described here was developed within the 2025–2026 edition of the *Proyecto Prometeo* — a programme convened annually by the Human Resources and Innovation Delegation Directorate of the Murcia Regional Education Department in partnership with the region's public universities, through which baccalaureate students enrolled in the research modality are paired with university researchers to develop incipient research projects. The programme provides an institutional frame for tutoring but carries no specific funding stream. The tutor acts as principal researcher for the student's incipient investigation, within their own university department. Participation is mediated by the students' schools, which provide the corresponding consent and backing and manage communication with families, in keeping with the programme's data-protection framework; no identifiable student production is reproduced here, and the audio was generated in the author's institutional account from the analytical work carried out in the sessions.

*Proyecto Prometeo* operates through research tutoring rather than whole-class instruction: baccalaureate students develop incipient research projects under the close mentorship of a university researcher, outside the ordinary curriculum. The intervention reported here is one such tutoring trajectory, and its value is exploratory and heuristic rather than confirmatory. A mentored, research-tutoring format affords a depth of analytical dialogue, correction and iteration that whole-class teaching cannot sustain, and it allows the pedagogical mechanism at issue — analysis converted into prompt, output returned to analysis — to be developed and observed at close range. What such a trajectory yields is not statistical generalisation but a transferable design and an explicit account of the conditions under which it works. It remains a documented didactic experience and grounded proposal rather than an empirical study; it is conceived, however, as the exploratory groundwork for a subsequent empirical study which can put its design and hypotheses to systematic test.

The tutoring workshop that provides the material for this chapter was hosted by the author at the University of Murcia and involved the IES Alcántara, a secondary-education institution in Alcantarilla (Región de Murcia) offering the *Ciencias y Tecnología* (Sciences and Technology) baccalaureate modality. Working from the Sciences and Technology track is not incidental: one aim of the design was to explore whether a pedagogical device centred on structured analytical listening could produce substantive musical work with adolescent learners whose musical background lay in general secondary schooling and informal private tuition, without relying on the technical competence of the conservatory or the regulated specialised music studies (in Spain, *Enseñanzas de régimen especial*).

The didactic aims of the workshop were four: to develop learners' capacity for structured analytical listening through an ordered inventory of musical parameters; to practise the transposition of analytical content into the linguistic form of a generative prompt; to exercise critical listening over AI-generated output as a second analytical pass; and to generate, iteratively, a piano audio fragment that could be defended as stylistically credible in relation to a closely studied corpus. The corpus chosen was a selection of five nocturnes by Frédéric Chopin — the *Nocturne in E-flat major, Op. 9 No. 2*; the *Nocturne in C-sharp minor, Op. posth.*; the *Nocturne in F major, Op. 15 No. 1*; the *Nocturne in D-flat major, Op. 27 No. 2*; and the *Nocturne in B major, Op. 32 No. 1* — a repertoire whose internal stylistic coherence, combined with its documented receptive accessibility, makes it well suited to a compact analytical-creative sequence (Samson, 1994).

### *Sequence of the intervention*

The workshop was structured as three two-hour sessions (February–April 2026). In the first, the tutor modelled the analytical procedure on the *Nocturne in E-flat major, Op. 9 No. 2* (see Table 1). The analytical instrument was a fixed-parameter table covering melody and its ornamentation, texture and pianistic writing, harmony and tonal progression, form and phrase structure, and rhythmic behaviour. The table was not presented as taxonomic exhaustiveness but as a practicable heuristic: an ordered grid whose value lies in forcing parametric disaggregation and verbalisation, and in making explicit the relations between parameters once each has been named.

Table 1. Analytical template applied to Chopin's *Nocturne in E-flat major, Op. 9 No. 2*, bars 1–12

| Parameter                                                     | Analytical description                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title</b>                                                  | <i>Nocturne in E-flat major, Op. 9 No. 2</i>                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Selected fragment</b>                                      | Bars 1–12                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Melody (typology, ornamentation)</b>                       | Highly ornamented, derived from <i>bel canto</i> : turns, trills and mordents. Expressive, cantabile and flexible, with register shifts and wide ascending intervals followed by terraced descents.                                                                                                                                                                                                                 |
| <b>Texture (pianistic writing, accompaniment)</b>             | Accompanied melody. Left-hand arpeggiated chords spanning more than two octaves with a stable pulse that allows focus on the principal line. The bass favours oblique motion (pedal) or stepwise conjunct motion.                                                                                                                                                                                                   |
| <b>Harmony (tonality, progression, characteristic chords)</b> | E-flat major. Harmonic rhythm typically one chord per beat, except in cadential approaches. Romantic chromatic tonal harmony; notable chords beyond diatonic function include the dominant with minor ninth, secondary dominants (V/ii, V/vi), appoggiatura chords and diminished sevenths (vii°7/V). The chromatic sequence of dominant sevenths linking the first and second large periods is especially salient. |

|                                              |                                                                                                                                                                                                                                  |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form (phrasing, repetition–variation)</b> | Classical four-bar phrasing. Bar form (a1–a2–b). a1: initial four-bar statement. a2: repetition with richer ornamentation. b: inflection towards the dominant, melodically more contained but agogically rich, with ritardandos. |
| <b>Rhythm (metre, density, values)</b>       | 12/8, with constant quaver pulse in the accompaniment. Wide rhythmic variety and flexibility in the melody, from dotted crotchets to semiquavers.                                                                                |
| <b>Other</b>                                 | Romantic pedalling: sounds are sustained according to the harmonic rhythm, changing with each chord.                                                                                                                             |

In the second session, the same grid was applied to the remaining four nocturnes under the tutor's guidance; discussion, rectification and elaboration proceeded in dialogue, producing four completed analytical tables, which the tutor reviewed and amended before they fed the generative phase.

The generative phase rested on a prompt structured around the acronym RCER — *Rol, Contexto, Específicos, Restricciones* (Role, Context, Specifics, Restrictions) — applied sequentially within a single prompt (see Table 2). The structure operationalises, for this specific task, the Persona, Context Manager, Recipe and Output Automater patterns catalogued by White *et al.* (2023), and aligns with the articulation of problem, context and constraints proposed by Federiakin *et al.* (2024) and with the explicit-structured formulation defended by Lo (2023). The prompt's Specifics section was populated from a condensed stylistic synthesis drawn from the five completed analytical tables, and its Restrictions foreclosed anachronistic or extra-stylistic features (jazz harmony, pop cadential formulas, instruments other than acoustic piano, sudden termination without cadential closure). The audio was generated with Lyria 3 Pro, the full-length model of Google's Lyria 3 family of music-generation models, accessed through the music-creation function of the Gemini app at the time of the workshop.<sup>1</sup>

Table 2. RCER prompt structure applied to the workshop

| Component      | Function                                                                                                                                                                                     |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Role</b>    | Assigns the model a specialised identity (here: composer and pianist specialised in Chopin's stylistic imitation). Anchors the generation within a defined expressive and technical horizon. |
| <b>Context</b> | Frames the task as an educational research project and establishes the analytical referent. The five analytical tables are declared as the basis on which the model must operate.            |

<sup>1</sup> Lyria 3 generates 44.1 kHz stereo audio from a textual prompt. The model used here, Lyria 3 Pro, produces full-length pieces of up to a couple of minutes whose duration and sectional structure can be steered through the prompt, in contrast to the short-form Lyria 3 Clip, which is fixed at thirty seconds. Generation is single-turn — a piece cannot be edited across successive prompts — so refinement proceeds by re-prompting, and results are not fully deterministic between calls. All output carries an inaudible SynthID watermark (Google, 2026a, 2026b).



|                     |                                                                                                                                                                                                                                                               |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Specifics</b>    | Translates the consolidated analytical synthesis into generative instructions, parameter by parameter (melody, texture, harmony, rhythm and tempo, audience). This section carries the analytical load of the prompt.                                         |
| <b>Restrictions</b> | Forecloses anachronistic or extra-stylistic features: non-piano instruments, electronic or percussive elements, jazz harmony, pop cadential formulas, distant unresolved modulations, abrupt termination, and literal reproduction of the analysed fragments. |

In the third session, the fragment generated with Lyria 3 Pro was re-listened to analytically, against the grid used in the first session, and discussed in terms of its stylistic fidelity and its shortcomings. Refinements to the prompt were drafted and the generation was iterated; a final version was selected for preservation. The session closed with the drafting of a written critical reflection on the output and on the limits of the generative tool itself.

## Discussion

### *Analysis as prompt content*

The most consequential pedagogical effect of the sequence did not emerge in the generative phase but in its upstream conversion. Translating the completed analytical tables into the Specifics section of the prompt obliged students to decide what was essential, what was accessory and what was contradictory across the five analyses. Observations registered separately under each Nocturne had to be consolidated into a single stylistic synthesis capable of driving generation rather than merely describing cases. In the present workshop, that synthesis crystallised around six claims about Chopin's nocturne style: the typical disposition of a cantabile, undulating melodic theme followed by a more ornamented repetition in the manner of *bel canto* (trills, mordents, turns and appoggiaturas) concentrating virtuosity at phrase endings; the prevalence of eight-bar classical phrasing with occasional introductions and codas; a chromatic tonal harmony that retains functional diatonicism while admitting secondary dominants, diminished-seventh chords, augmented-sixth chords and the Neapolitan, with harmonic rhythm oscillating between one chord per bar and one chord per pulse and densifying at cadences; an accompanied-melody texture whose left-hand arpeggios span from one to over two octaves (with the block-chord exception of Op. 15 No. 1), anchoring attention on the principal line; a marked contrast between the metrical constancy of the accompaniment (quavers, semi-quavers or triplets) and the extreme rhythmic freedom of the melody, including both very long values and demisemiquavers as well as intensive use of irregular groupings; and a variety of metres across the corpus (12/8, 4/4, 3/4, 6/8) that tends to remain stable within each piece.

The synthesis is not an analytical sum but a generative claim about the style: it selects those features that must govern a stylistically credible output. This move corresponds closely to what Méndez Cancelas (2025) terms the explicitation of musical knowledge — the passage from tacit recognition to verbal articulation — which her work on composition as a tool of musical learning identifies as the principal lever of creative self-regulation. In the present design the explicitation is forced by the technical requirements of the model: a prompt that speaks of ‘Chopin-style melodies’ will produce generic Romantic-sounding audio; a prompt that deploys the six-point synthesis sketched above produces audio that can be meaningfully judged against the corpus. Prompt specificity is, in pedagogical terms, analytical exactness made public.

### *Critical listening on the generated output*

The generated fragment<sup>2</sup> is not the end of the sequence; it is the object of a second analytical pass. The written critical assessment produced in the workshop was structured around three columns — positive aspects, aspects for improvement, and final judgement — a tripartite reflective schema that retains the qualitative texture of the listening while forcing a directional conclusion. It is preserved here in substance rather than verbatim, to respect the aggregated character of this account.

Among the successful features, the assessment recorded a credible accompanied-melody texture, a left-hand arpeggiation spanning two octaves, a cantabile melodic typology with moderate ornamentation, the use of chromaticism and the appearance of virtuosic passages towards the cadential zone. Among the shortcomings, three stood out. The first was a stylistic drift — described as a ‘more pop than Chopin’ quality — that betrayed the model’s training bias towards high-frequency popular-music patterns, even under explicit stylistic restriction. The second was a formal deficiency: the absence of a clearly recognisable main theme returning in variation, replaced by a gradual intensification of ornamental density that mimicked direction without supplying motivic coherence. The third was a breakdown of classical phrase organisation; the four- and eight-bar symmetry characteristic of the genre was not consistently preserved.

Two pedagogical observations follow. First, the capacity to formulate these deficiencies with this level of structural specificity is itself the principal indicator of what the sequence trains: formal organisation and motivic logic, the most demanding parameters in the analytical grid, are the ones that diagnose the output’s weakness. Second, the critique lands exactly at the point where recent reviews of AI-based music generation locate the principal technical frontier (Civit *et al.*, 2022): coherence at medium-scale formal units remains the hardest problem in generative musical modelling, and students’ critical listening converges with the research literature without having been directed towards it.

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<sup>2</sup> The generated audio fragment is available at: <http://bit.ly/4cUnous>

The final judgement recorded in the workshop tracked this convergence: the tool proves useful for surface-level stylistic imitation — texture, ornamentation, harmonic colour — but still falls short on the organic coherence and formal logic that define the genre. That this formal weakness should appear even with Lyria 3 Pro — the member of the family designed to reason over sectional structure before generating — only sharpens the point: medium-scale formal coherence remains the genre's most resistant parameter, for the model no less than for the analysis that interrogates it.

### *Adaptability of the design across educational levels*

The design was developed in a tutoring context with baccalaureate students enrolled in a research track — with some informal musical background but no formal specialised training — yet its structure is not specific to that level. Two directions of adaptation are tenable. The first extends the design downward, towards compulsory secondary education and the generalist baccalaureate: the parametric grid is retained but the analytical depth required within each parameter is reduced (shorter descriptive entries, fewer technical distinctions, greater teacher scaffolding of categories), and the corpus is replaced by shorter pieces whose stylistic traits are closer and more meaningful to the students' own listening horizon. The RCER structure of the prompt is preserved in full, with teacher support where needed (Burnard & Murphy, 2017).

The second direction extends the design upward, towards specialised musical training and higher education both in artistic and university education. In professional music studies — the *Enseñanzas profesionales y superiores de música* of the Spanish conservatory system — the sequence admits intensification rather than dilution. The analytical grid can be expanded with voice-leading analysis, reductive approaches where curricularly appropriate, and motivic-intervallic tracing. The generative stage can be integrated with students' own compositional writing — using the AI-generated fragment as a proposal to be scored and refined, rather than as the terminal output — closing a loop between prompt writing and notational realisation. At the university level, the same device serves undergraduate programmes in music education and musicology, as well as the master's programmes in secondary teacher training with a specialisation in music, where students are not only learners of the method but future designers of analogous didactic sequences for their own classrooms. Across all adaptations, the invariant is the insistence that the AI never operates without analytical upstream and critical downstream. Transferability extends beyond educational level. The same sequence accommodates other stylistically coherent repertoires — e.g. a Baroque dance, a Classical theme, a tango, a film-scoring idiom — once the analytical grid and the restrictions are recalibrated to the chosen style; and it is portable across music-generation platforms, since its pedagogical load resides in the analysis–prompt–critique cycle rather than in any single model, each platform's particular biases simply becoming further objects of the critical listening.

## Conclusions

The contribution of this chapter is pedagogical rather than evidential. It proposes, and documents in situ, a didactic sequence in which generative AI functions as a scaffold for music perception without displacing the analytical and auditive work that constitutes musical learning. The sequence inverts the most common framing of AI in the music classroom: rather than serving as a shortcut around technical difficulties, it absorbs those difficulties so that analytical effort can be concentrated on the parameters where learning is genuinely at stake — identification, relation and judgement of stylistic features. The prompt, in this design, is the written form of analytical listening; the model output is the object of a second, comparative analytical listening; and the critical reflection on the output is the site where students' pedagogical gain becomes visible.

The limitations of the account are stated openly. The experience rests on a single tutoring trajectory within a regional research-support programme, with no formal instruments of data collection or learning assessment; its register is that of a documented didactic experience and grounded proposal, not of a study. The dependence on a specific commercial tool — a choice made for institutional convenience, in this case Lyria 3 Pro, accessed through the Gemini app — introduces a further constraint: the stylistic biases identified in the output are in part artefacts of the model's training corpus and would differ across platforms. The corpus used is narrowly chosen for stylistic coherence; analogous sequences with stylistically more heterogeneous corpora would require adjustment of the analytical grid and of the Restrictions section of the prompt.

Two lines of continuation suggest themselves. The first is the systematic extension of the design to group settings in the music classroom, with attention to the reconfiguration of the analytical work under collaborative conditions. The second is the empirical study of learning gains in analytical listening across a substantial number of participants, which would provide the evidential complement that this chapter has not attempted.

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