



The Development of Learning Effectiveness by Using Music Studies in Guizhou Qiannan Economic College in China

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Abstract

Music general education in private universities located in China's ethnic regions is often limited by curriculum constraints, insufficient resources, and varying levels of teaching quality. These challenges reduce the potential of music education to support broader academic and personal development among non-music majors. This study aimed to: (1) examine the current situation and problems of music teaching at Guizhou Qiannan Economic College; (2) provide guidelines for using music to improve students' learning efficiency; (3) develop learning effectiveness through structured music studies; and (4) evaluate the outcomes of the music-based intervention. An embedded mixed-methods design was used. Quantitative data were collected from 390 students through a structured questionnaire, while qualitative data were obtained from interviews with 25 music teachers and 10 students, classroom observations, and document analysis. A 16-week Kodály–Orff integrated program was implemented with 39 student volunteers to test the proposed guidelines and measure changes in learning effectiveness. Findings show that students perceive teacher competence positively, yet curriculum design, learning resources, and participation opportunities remain only moderate. The developed guidelines emphasize emotional engagement, cultural relevance, and alignment between music activities and learning tasks. Evaluation of the 16-week intervention indicates improvements across cognitive, affective, behavioural, and music-skill dimensions. Participants also demonstrated a significant increase in semester GPA, suggesting positive academic spillover effects. The study concludes that structured and culturally responsive music studies can effectively enhance learning effectiveness in ethnic regional colleges.

Keywords: Music Education, Learning Effectiveness, Kodály–Orff Approach

1. Introduction

Music education is increasingly recognised as an important component of holistic learning, contributing to students' cognitive, emotional and behavioural development across disciplines (Liu & Zhang, 2021; Chen, 2023). Despite this growing recognition, music general education remains underprioritised in many private universities located in China's ethnic minority regions. Such institutions often face persistent challenges, including limited instructional hours, insufficient curriculum planning and a shortage of qualified music educators, which collectively undermine the role of music as a tool for enhancing learning effectiveness (Wang & He, 2022). As a result, students frequently experience passive learning, reduced engagement and inconsistent learning outcomes conditions that run counter to research demonstrating that music supports attention, memory, motivation and emotional regulation, all of which are essential for academic success (Sun & Li, 2020; Zhao, 2025).



Guizhou Qiannan Economic College exemplifies this situation. Serving a diverse population many from ethnic minority backgrounds and first-generation university families the college encounters structural constraints such as overcrowded classes, limited access to teaching materials and inconsistent pedagogical practices across music courses. Previous evaluations indicate that students perceive music classes as only moderately effective, citing low participation opportunities and minimal practical application (Huang & Mei, 2022). These challenges underscore the necessity of strengthening music education not merely as an aesthetic subject, but as a strategic component that can support academic achievement, emotional well-being and cultural identity development in ethnic regional institutions (Tan, 2024).

In response to these needs, the present study aims to develop and evaluate approaches to enhance learning effectiveness through music studies in Guizhou Qiannan Economic College. By examining the existing problems, proposing evidence-based guidelines and implementing a structured 16-week Kodály–Orff program, this research seeks to demonstrate how well-designed music education can serve as a practical, feasible and culturally responsive strategy for improving student learning outcomes in ethnic regional higher education.

1 Research Objectives

1.1 To study the current situation and problems of music teaching in Guizhou Qiannan Economic College.

1.2 To provide the guideline to use of music to improve the learning efficiency of students in Guizhou Qiannan College of Economics.

1.3 To develop the learning effectiveness by using music studies in Guizhou Qiannan Economic College in China

1.4 To evaluate the learning effectiveness by using music studies in Guizhou Qiannan Economic College in China

2 Research Scope

2.1 Population and Samples

This study involved undergraduate students from eight faculties at Guizhou Qiannan Economic College (n = 390). In addition, 25 music teachers and 10 students participated in in-depth interviews. A group of 39 student volunteers joined the 16-week Kodály–Orff integrated learning intervention.

2.2 Content Scope

The research focused on four dimensions of learning effectiveness:

Cognitive: understanding of music concepts and academic performance

Affective: motivation, attitudes, and confidence

Behavioral: participation, communication, and learning behaviors

Music Skills: rhythm, singing, listening analysis, and applied musical performance

2.3 Instrumentation Scope

Research tools included:

questionnaires on music learning quality and learning effectiveness,

semi-structured interview forms,

classroom observation checklists,

a 16-week integrated Kodály–Orff instructional program, and

academic performance comparisons (e.g., semester GPA).

2.4 Geographical Scope

The study was conducted at Guizhou Qiannan Economic College, located in Qiannan Prefecture a multi-ethnic region of Guizhou Province, China. The local cultural diversity and resource limitations shape music education practices and student learning behaviors.

2.5 Time Scope

The research was carried out between 2023 and 2025, including one full semester of intervention-based instruction.

3 Research Outcomes

3.1 Current Situation and Problems of Music Teaching

Students rated the overall quality of music learning as moderate, citing limited learning resources, insufficient practice opportunities, and weak integration of ethnic cultural content as key problems.

3.2 Guidelines for Improving Learning Effectiveness

Qualitative analysis produced several improvement guidelines:

strengthening emotional engagement in lessons,
linking music content with local ethnic culture in Qiannan,
aligning tasks with musical activities to support deeper learning, and
increasing student voice in lesson design and participation.

3.3 Development of Learning Effectiveness through Music Studies

The Kodály–Orff integrated model implemented over 16 weeks led to:
significant improvement in cognitive, affective, behavioral, and music-skill
dimensions,

increased motivation, confidence, and participation,
enhanced communication and group-learning behaviors,
clear improvement in basic musical skills such as rhythm and singing. The intervention
group also showed higher semester GPAs, indicating positive academic spillover effects.

3.4 Evaluation of the Developed Model

Expert evaluations confirmed that the model is feasible, practical, and adaptable, even
under limited-resource conditions.

It is considered suitable for supporting holistic development among non–music-major
students in similar regional universities.

These findings support existing literature asserting that music education contributes to
cognitive, emotional, and behavioral growth (Chen & Li, 2022; Xu, 2024).

1.

2. Literature Review

Music Education and Its Role in Learning Effectiveness

Music education has been widely recognised as an important contributor to students' academic and personal development. Research between 2020–2025 consistently demonstrates that music learning enhances attention, memory processing, emotional regulation and motivation factors directly associated with improved learning effectiveness in higher education (Sun & Li, 2020; Liu & Zhang, 2021; Zhao, 2025). Cognitive benefits arise from structured musical training that stimulates auditory–motor integration and strengthens executive functioning, while affective benefits include increased confidence, reduced anxiety and greater emotional engagement in classroom activities (Chen, 2023). Behaviourally, music supports collaborative learning, participation and self-regulation, making it a multidimensional tool for improving academic outcomes.

Music Teaching in Private Universities in Ethnic Minority Regions

Institutions located in China's ethnic minority regions face unique constraints in delivering high-quality general education subjects, particularly music. Studies show that private universities in Guizhou, Yunnan and Guangxi often experience a shortage of qualified music instructors, limited teaching spaces and fragmented curriculum design (Wang & He, 2022). These contextual limitations result in reduced opportunities for practical learning, low

student participation, and inconsistent instruction. Huang and Mei (2022) found that students in such institutions frequently perceive music classes as lacking relevance, engagement and cultural connection, which lowers the potential educational benefits.

Local Cultural Context: The Case of Guizhou Qiannan Economic College

Guizhou province, particularly the Qiannan Buyi and Miao Autonomous Prefecture, is known for its rich musical heritage across Buyi, Miao and Dong communities. Despite this cultural richness, music education in local private colleges remains underdeveloped due to limited institutional support and insufficient integration of ethnic musical elements into the curriculum (Tan, 2024). Guizhou Qiannan Economic College serves many first-generation and ethnic minority students who often require additional academic support and culturally responsive teaching approaches. Existing evaluations at the college indicate that music classes are perceived as moderately effective, with weaknesses in participation opportunities, learning resources and curriculum continuity. This local context highlights the need for a structured intervention that incorporates both pedagogical effectiveness and cultural relevance.

Music-Based Interventions and the Kodály–Orff Approach

Recent studies emphasise that integrated music pedagogies, such as the Kodály and Orff approaches, have strong potential to improve learning outcomes for non-music majors (Chen, 2023; Zhao, 2025). These methods combine active music-making, vocal training, rhythm, movement and collaborative learning. They have been shown to increase students' motivation, engagement and skill development, particularly when applied in short-term structured programs. For institutions with limited resources such as private colleges in ethnic regions Kodály–Orff interventions provide a feasible, low-cost model for enhancing student learning.

Research Gap

Although prior studies highlight the benefits of music education and identify challenges in ethnic regional institutions, few studies focus specifically on developing and evaluating a structured model to improve learning effectiveness in private colleges like Guizhou Qiannan Economic College. Moreover, research integrating student perceptions, teacher perspectives and an actual instructional intervention remains limited. This study addresses these gaps by examining the existing situation, developing guidelines, implementing a 16-week Kodály–Orff program and evaluating its impact across cognitive, affective, behavioral and music-skill outcomes.

3. Research Methodology

3.1 Target Groups

The target population consisted of undergraduate students enrolled in general education courses at Guizhou Qiannan Economic College. A total of 390 students from eight faculties were selected through stratified sampling to complete the survey. In addition, 25 music teachers and 10 students participated in semi-structured in-depth interviews. For the intervention, 39 volunteer students joined a 16-week integrated Kodály–Orff music program used to examine changes in learning effectiveness.

3.2 Research Instruments

Five types of instruments were employed:

1. Music Learning Quality Questionnaire – measuring perceptions of curriculum design, teaching methods, resources, engagement, and overall satisfaction.
2. Learning Effectiveness Scale – assessing four dimensions: cognitive, affective, behavioral, and music-skills development.
3. Semi-Structured Interview Forms – for music teachers and students, used to explore problems, needs, perceptions, and suggested improvements.
4. Classroom Observation Checklist – focusing on participation, interaction, teaching

behavior, and learning atmosphere.

5. 16-Week Kodály–Orff Intervention Package – including lesson plans, activities, and evaluation rubrics.

All instruments were validated by three experts in music education and educational measurement using the IOC index, ensuring relevance and content validity.

3.3 Data Collection Procedures

Stage 1: Preliminary Study and Problem Identification

Review institutional documents, curriculum structures, and course outlines.

Conduct initial interviews with teachers to identify current problems and needs in music general education.

Stage 2: Survey Administration

Distribute questionnaires to 390 students across eight faculties.

Collect data on perceptions of music learning quality and learning effectiveness.

Stage 3: Implementation of the 16-Week Intervention

Recruit 39 volunteer students.

Conduct Kodály–Orff integrated classes for one semester.

Observe classroom activities and document behavioral engagement and participation.

Measure pre–post GPA for comparative analysis.

Stage 4: In-Depth Interviews and Model Evaluation

Conduct interviews with 25 music teachers and 10 students.

Gather feedback on learning outcomes, cultural relevance, motivation, engagement, and feasibility.

Use expert review to evaluate the developed model and intervention framework.

3.4 Data Verification

To ensure accuracy and credibility:

Content validity was evaluated by three experts using IOC values.

Reliability of questionnaires was confirmed using Cronbach's alpha. The total questionnaire obtained a Cronbach's Alpha of .93, indicating a very high level of reliability.

Triangulation (methodological and source triangulation) was applied across surveys, interviews, and observations.

Data from interviews were checked through member checking to confirm accuracy of interpretations.

Observation notes were reviewed by two independent specialists for inter-rater reliability.

3.5 Data Analysis

Descriptive statistics (frequency, mean, standard deviation) were used to summarize students' perceptions of current music learning conditions.

Content analysis was applied to interview transcripts to generate themes related to teaching problems, learning needs, and guidelines for improving effectiveness.

Triangulated interpretation was used to integrate quantitative and qualitative findings to develop and validate the final model.

4. Results

The results of the study are organized and reported in accordance with the four research objectives as follows:

Objective 1: To examine the current situation and problems in music education at the university

1 Current Situation of Music Education

The findings on the current situation were analyzed across four key domains. The overall mean score was 40 (SD = 81), indicating a Moderate level.

(1) Curriculum and Course Content Mean = 42, SD = 81 (Moderate) Participants indicated that the curriculum provides foundational musical knowledge but lacks advanced, diversified modules. Many respondents pointed out that course content does not fully reflect contemporary music industry needs. Interview excerpts supported this finding:

"The curriculum is acceptable, but some courses feel outdated. We need more modern, applied music subjects such as digital music production."

"Students want more elective options that match their musical interests."

(2) Teaching Methods and Teachers' Competence Mean = 56, SD = 77 (High) Teachers were generally viewed as competent, committed, and knowledgeable. Their teaching methods were found to be effective, especially practical instruction and demonstration-based teaching. Interview insights included:

"Most instructors are very skilled musicians, and their demonstrations help us understand techniques more deeply."

"Teachers try to adapt new teaching strategies, but sometimes time constraints limit innovation."

(3) Teaching Materials and Facilities Mean = 18, SD = 85 (Moderate) Although basic musical instruments and classrooms are available, shortages and outdated equipment were frequently mentioned. Participants stated:

"Some instruments are too old, especially pianos and percussion instruments."

"The practice rooms are limited, so students must take turns or practice outside scheduled hours."

(4) Learning Environment and Student Engagement Mean = 45, SD = 79 (Moderate) The learning environment encourages creativity and collaboration, but high student workload reduces engagement. Interview comments included:

"We enjoy ensemble activities, but the schedule is tight, so it's hard to stay engaged all the time."

"Peer support is strong, but the environment needs more opportunities for performance and exposure."

2 Problems in Music Education

The results showed that the overall level of problems was Moderate (Mean = 36, SD = 81). Problems were identified across four aspects.

(1) Curriculum and Course Content Problems Mean = 36, SD = 81 (Moderate) Key issues included lack of course diversity, insufficient integration of digital musical skills, and limited practical opportunities.

Interview statements emphasized:

"We need more hands-on courses, not only theory-heavy ones."

"Digital music is essential now, but our curriculum still focuses mainly on classical training."

(2) Teaching Methods and Teachers' Competence Problems Mean = 34, SD = 81 (Moderate) While teachers are competent, some still rely heavily on traditional lecture-based delivery instead of interactive approaches.

Students expressed:

"Some teachers don't use modern teaching tools, so the class feels less engaging."

"We want more feedback and individual coaching sessions."

(3) Teaching Materials and Facilities Problems Mean = 27, SD = 83 (Moderate) Insufficient equipment, outdated tools, and limited practice spaces remain major



obstacles.

Comments included:

"There aren't enough quality instruments for all students."

"Booking practice rooms is difficult, especially before exams."

(4) Learning Environment and Student Engagement Problems Mean = 45, SD = 79 (Moderate) Students struggle with motivation due to time pressure, academic workload, and a lack of varied performance venues. Interview highlights:

"We have few opportunities to perform publicly."

"The pressure of coursework reduces our motivation to practice."

Summary of Objective 1 Results

The findings showed that the current situation of general music education was at a *moderate* overall level, with the highest strength in teaching methods and teachers' competence. In contrast, the problems were also rated at a *moderate* level, with learning environment and student engagement showing the greatest challenges. Curriculum, teaching materials, and facilities still required improvement. Overall, the results indicate a need for targeted development to enhance teaching quality and student learning experiences.

Objective 2: To identify the needs for developing music instruction at the university

The analysis of needs was conducted across the same four domains. Overall, respondents expressed a High level of need for development, indicating strong expectations for improving music education quality, instructional processes, and student learning outcomes.

1 Curriculum and Course Content Needs

Participants showed a clear desire for a more relevant, modernized, and flexible curriculum. Many emphasized that the current curriculum does not sufficiently prepare students for contemporary music careers, especially in digital and industry-driven areas.

Key needs expressed include:

Updating modules to include digital music production, sound engineering, music technology, and entrepreneurship in music

Increasing elective course choices to support students' diverse interests

Enhancing practical experiences such as workshops, performances, and collaborative projects

Interview excerpts:

"We need courses that match today's music careers. Modern musicians must know recording, mixing, and digital tools—not just classical theory."

"If the university adds more elective subjects, students can explore their strengths instead of following a rigid structure."

2 Teaching Methods and Teachers' Professional Development Needs

Participants emphasized the need to enhance interactive, student-centered teaching methods and to support instructors with continuous professional development.

Identified needs include: More active learning approaches, including project-based learning, ensemble learning, and peer collaboration

Greater use of digital tools in teaching (e.g., notation software, DAW demonstration, smart classroom tools)

Additional professional development for teachers in innovative pedagogies

Interview insights:

"Teachers should have training in new teaching techniques, especially using



technology to make lessons more engaging.”

“We learn better through doing—playing together, performing, and creating music—not only listening to lectures.”

3 Teaching Materials and Facilities Needs

Strong needs were identified for improving physical and technological resources to support effective music learning.

Main needs include:

Upgrading musical instruments and purchasing additional units to reduce shortages

Improving acoustics and expansion of practice rooms

Adding technology-enhanced learning tools such as MIDI keyboards, audio interfaces, smart-classroom equipment

Participants noted:

“The instruments should be upgraded because some are too old for professional-level practice.”

“Practice rooms are limited and often fully booked. We need more spaces for individual and ensemble practice.”

4 Learning Environment and Student Engagement Needs

Students and instructors expressed the need for a more supportive and stimulating environment that enhances engagement and performance confidence.

Identified needs:

Creating more performance opportunities both inside and outside campus

Increasing music events, workshops, competitions, and community outreach

Providing academic counseling and workload management support to reduce stress

Interview statements:

“We want more performance chances. It helps us learn and builds confidence.”

“Sometimes the workload makes it difficult to stay motivated, so guidance from teachers would help us manage better.”

Summary of Objective 2 Results

Overall, participants expressed high developmental needs in all four domains. The strongest needs centered on curriculum modernization, enhanced teaching methods, updated facilities, and an enriched learning environment that supports creativity, engagement, and professional readiness.

Objective 3: To develop learning effectiveness by implementing a 16-week general music education intervention

To address the needs identified in Objectives 1 and 2, the researcher developed and implemented a 16-week integrated Kodály–Orff music education intervention with 39 volunteer non-music major students. The intervention was designed to enhance learning effectiveness across four dimensions—cognitive, affective, behavioral, and music skills while ensuring feasibility within the resource constraints of Guizhou Qiannan College of Economics.

1 Design of the 16-Week Intervention

The intervention was structured around four core components:

1. Kodály-based vocal training

Solfege (do–re–mi), rhythm syllables, and ear-training

Short folk songs selected from Guizhou ethnic minority cultures

Purpose: strengthen musical literacy and listening accuracy



2. Orff-based rhythmic and instrumental activities

Body percussion, simple percussion instruments, rhythmic improvisation

Purpose: develop coordination, creativity, and ensemble awareness

3. Task–Music Integration

Using music to support memory, concentration, and thematic learning

Examples: rhythmic repetition for vocabulary retention, melodic cues for sequencing

4. Collaborative Performance Projects

Small-group arrangements and end-of-semester performance

Purpose: increase engagement, confidence, and interaction

These elements were intentionally chosen based on the needs assessment and supported by qualitative input from teachers and students.

One teacher stated: *“Music needs to be active. When students sing, move, and create together, they become more confident and more focused.”*

A participating student added: *“Before this course, I never thought I could perform in front of others. Now I want to join more activities.”*

2 Implementation Process

The program followed a consistent weekly structure:

Warm-up (10 minutes): breathing, vocalization, rhythmic echo patterns

Core activities (50 minutes): Kodály literacy tasks, Orff ensemble work

Application task (20 minutes): memory tasks, group exercises, or creative composition

Reflection (10 minutes): student feedback, discussion, or journaling

Classroom observations documented a gradual increase in student participation and willingness to volunteer for activities. Teachers also noted that students quickly adapted to interactive learning formats.

3 Improvements in Learning Effectiveness

Cognitive Outcomes

Students showed clear improvements in basic music theory, rhythmic reading, and melodic recognition. The mean scores on the music knowledge assessment increased notably. Teachers also reported stronger concentration and better memory performance in academic tasks. One instructor remarked: *“Their reaction time in rhythm reading and their ability to remember patterns improved significantly.”*

Affective Outcomes

Students demonstrated higher motivation, enjoyment, and emotional engagement with music learning. Weekly reflections showed increased enthusiasm: *“This class makes me feel relaxed and happy after other difficult subjects.”* Many also reported greater confidence and reduced performance anxiety.

Behavioral Engagement

Class participation improved steadily across the semester.

More students volunteered to lead rhythm exercises

Group work became more collaborative and self-directed

Attendance remained consistently high (over 95%)

A student shared: *“I used to be shy, but when we do rhythm or singing together, I feel part of the group.”*

Music Skill Development

By the end of the 16 weeks, students demonstrated noticeable improvement in:

Pitch accuracy
Rhythmic coordination
Ensemble performance skills
Basic creative composition
The final mini-performance showed strong group cohesion and confidence.

4 Academic Spillover Effects

Beyond music skills, the intervention group showed an increase in semester GPA, suggesting that music learning may support:

improved concentration
memory organization
stress reduction
overall learning readiness

Teachers commented that the participating students became more disciplined and more positive in other classes.

Summary of Objective 3 Results

The 16-week Kodály–Orff intervention significantly enhanced learning effectiveness across all four dimensions. Students became more confident, motivated, and engaged, while also demonstrating stronger music skills and academic improvements. The results indicate that a structured, culturally relevant, and interactive music general education program is both feasible and valuable for non-music majors at Guizhou Qiannan College of Economics.

Objective 4: To evaluate the learning effectiveness of the 16-week music education intervention

The evaluation of the 16-week Kodály–Orff–based music education intervention was conducted using quantitative assessment, qualitative interviews, classroom observations, and a pre–post GPA comparison. The findings confirm that the intervention produced improvements across cognitive, affective, behavioral, and music skill dimensions, demonstrating both educational value and practical feasibility in the context of Guizhou Qiannan College of Economics.

1 Cognitive Learning Outcomes

Quantitative assessments showed clear improvement in students’ music knowledge and basic theoretical understanding. Students’ mean post-test scores were significantly higher than pre-test scores ($p < .05$), indicating measurable cognitive gains.

Teachers also emphasized noticeable changes:

“Students became more accurate in pitch and rhythm recognition, something many struggled with at the beginning.”

“Their attention span improved. They were able to concentrate longer during tasks.”

Students similarly reported improved memory and comprehension, with one noting: *“I can memorize patterns more easily now. It also helps me focus in other classes.”*

2 Affective Learning Outcomes

Affective outcomes improved significantly, as students expressed higher levels of motivation, confidence, and emotional engagement with music.

Interview highlights include:

“Music class feels relaxing. I look forward to it every week.”

“I used to feel embarrassed to sing, but now I feel more comfortable.”

Survey data supported these improvements, showing higher scores in:
learning enjoyment

confidence in performing
emotional openness
overall satisfaction with the course
These findings affirm that emotionally supportive learning environments contribute meaningfully to learning effectiveness.

3 Behavioral Engagement and Participation Outcomes

Classroom observation logs showed a sharp rise in active participation:
More volunteers for leadership tasks
Increased willingness to perform solos or small-group tasks
Stronger group cooperation in ensemble activities
Consistently high attendance (above 95%)
Students described feeling more engaged:
"I feel more active in class now. I want to participate, not just sit and watch."
Teachers similarly noted that the interactive format encouraged participation even among previously quiet students.

4 Music Skill Development

Music skill enhancement was one of the clearest outcomes of the intervention. Students improved in:
vocal tone accuracy
rhythmic precision
ensemble timing
sight-singing and rhythmic reading
creativity in improvisation and arrangement
The final performance demonstrated observable transformation in students' readiness and confidence.
One teacher commented: *"Their sense of rhythm and teamwork improved dramatically. They enjoy creating music together."*

5 Academic Spillover Effects (GPA Improvement)

A pre-post comparison of student GPA indicated a notable increase after the 16-week intervention. A paired-sample t-test showed a statistically significant difference ($p < .05$), suggesting that music study positively influenced academic performance, possibly through:
improved concentration
stress reduction
higher motivation
better classroom engagement
This aligns with students' self-reports:
"I feel more relaxed and can focus better in my academic courses." *"Music activities help clear my mind before studying."*

6 Students' Overall Evaluation of the Intervention

Students provided highly positive feedback regarding the instructional approach, cultural relevance, and interactive design:
Appreciation for Guizhou minority folk songs
Enjoyment of group work
Feeling supported and encouraged
Perceiving the course as meaningful, not just a requirement
One student summarized: *"This is the first time I felt music class is truly connected to my life and culture."*

7 Teachers' Evaluation of Feasibility and Effectiveness

Teachers highlighted several strengths:

The Kodály–Orff approach is appropriate for non-music majors.

The structure is feasible even with limited facilities.

Students respond well to step-by-step, active-learning activities.

However, they also recommended:

More instruments for ensemble work

Additional training for teachers in interactive pedagogy

More flexible scheduling to reduce class conflicts

Summary of Objective 4 Results

The evaluation clearly demonstrates that the 16-week Kodály–Orff intervention successfully enhanced learning effectiveness across multiple dimensions. Students not only developed music-related knowledge and skills but also experienced improvements in emotional engagement, participation, and overall academic performance. Both students and teachers agreed that the intervention is practical, culturally relevant, and impactful for non-music majors at Guizhou Qiannan College of Economics.

5. Conclusion

This study examined the current situation and problems of music teaching at Guizhou Qiannan College of Economics, developed guidelines for improving learning effectiveness, implemented a 16-week Kodály–Orff–based intervention, and evaluated its outcomes. The findings show that while the existing music curriculum, resources, and student engagement were only moderate, the proposed guidelines emphasizing emotional engagement, cultural relevance, active participation, and teacher competence provided a strong foundation for instructional improvement. The 16-week intervention demonstrated high feasibility and produced significant gains across cognitive, affective, behavioral, and music-skill dimensions, with students reporting greater motivation, confidence, and participation. A notable increase in GPA further indicates positive academic spillover effects. Overall, the study confirms that well-designed music education can substantially enhance learning effectiveness for non-music majors in ethnic-region private colleges.

6. Discussion

The findings of this study provide a comprehensive understanding of the current situation, problems, guidelines, and effectiveness of using music studies to enhance learning at Guizhou Qiannan College of Economics. Overall, the results support existing theories of music education, learning psychology, and student engagement, while also extending recent empirical work in the Chinese higher education context.

Current Situation and Problems of Music Teaching

The analysis of the current situation revealed that music teaching at the college is generally at a moderate level, with strengths in teacher competence but limitations in curriculum design, learning materials, and student engagement. These findings are consistent with prior studies showing that general music education in private and minority-region institutions often suffers from insufficient resources, outdated course structures, and limited student participation (Qiao, 2024; Wang & He, 2022). The moderately high rating for teaching methods aligns with literature suggesting that teacher–student interaction is a key driver of motivation and perceived learning effectiveness (Liu & Zhang, 2021).

The problems identified particularly related to curriculum relevance, facility

limitations, and inconsistent student engagement also correspond with earlier findings in similar educational environments. For example, Chen (2023) notes that music programs lacking cultural relevance and active-learning components often fail to capture student interest. The moderate level of reported problems in this study therefore reflects systemic challenges common to rural or ethnic-region institutions in China, where music education has historically received limited institutional priority (Tan, 2024).

Guidelines for Improving Learning Effectiveness Through Music

The guidelines developed through interviews and focus groups emphasize emotional engagement, culturally relevant content, task–music integration, and student voice, all of which align strongly with contemporary music pedagogy models. The emphasis on emotional engagement supports findings by Sun and Li (2020), who argue that music stimulates emotional regulation and motivation, making it a powerful tool for supporting holistic learning. Likewise, the integration of ethnic minority musical traditions aligns with culturally responsive teaching frameworks that increase identity affirmation and learning relevance (Tan, 2024).

The focus on task–music alignment also reflects principles from cognitive load theory, suggesting that rhythmic and melodic structures help students retain and process information more efficiently (Zhao, 2025). Teachers’ and students’ recommendations for more interactive, participatory lessons also mirror recent research showing that active-learning environments significantly improve engagement among non-music majors (Huang & Mei, 2022).

Development and Implementation of the 16-Week Intervention

The 16-week Kodály–Orff intervention demonstrated strong feasibility and effectiveness. This aligns with global evidence supporting Kodály’s sequential skill development and Orff’s emphasis on creativity and movement as effective for non-music majors (Chen, 2023; Liu & Zhang, 2021). The improvements observed in cognitive, affective, behavioral, and musical skill dimensions reflect the holistic principles of both methods.

The positive student reflections such as increased confidence, reduced anxiety, and higher motivation are consistent with theories of embodied learning, social constructivism, and emotional cognition, which propose that learning activities involving movement, collaboration, and emotional expression enhance overall learning readiness. Students’ descriptions of feeling “relaxed,” “motivated,” and “more confident” resonate with Sun and Li’s (2020) findings on the psychological benefits of structured music activities.

The use of local folk songs also operationalizes Tan’s (2024) argument that cultural music content strengthens identity connection and fosters deeper engagement, especially for students in ethnic-region colleges.

Evaluation of Learning Effectiveness

The evaluation results show statistically significant improvements across all dimensions after the intervention. The rise in GPA is particularly notable, supporting Zhao’s (2025) findings that music participation enhances academic performance through improved concentration, emotional balance, and cognitive flexibility.

The affective and behavioral gains such as increased participation, confidence, and collaborative skills reinforce the importance of interactive and student-centered approaches emphasized by Huang and Mei (2022). Teachers’ observations that students became more expressive and cooperative also align with group learning theory, which argues that collective music-making builds social cohesion and communication skills.

Furthermore, the improvement in music skills validates the structured Kodály sequence and Orff ensemble practices. According to Chen (2023), these methods effectively support beginners by combining clear scaffolding with engaging, multimodal learning.

Overall, the evaluation demonstrates that the intervention not only addressed existing

problems but also transformed the learning environment into one that is more interactive, culturally meaningful, and psychologically supportive.

Limitations and Generalizability

This study has several limitations that should be acknowledged. First, the sample was drawn from a single institutional context, which may limit the generalizability of the findings to other higher education settings with different curricular structures or student backgrounds. Second, although the study employed structured instructional interventions, the duration of the intervention was relatively limited; therefore, long-term effects of the instructional reforms on students' learning outcomes could not be fully examined. Third, the research focused primarily on non-music majors, and the use of music-related concepts was intended as a pedagogical framework rather than as an assessment of musical proficiency. As a result, the findings should be interpreted in terms of educational development rather than disciplinary music expertise. Finally, data were collected mainly through self-reported measures, which may be subject to response bias despite efforts to ensure reliability and validity.

7. Suggestions

Policy Suggestions

Higher education administrators should strengthen institutional support for general music education by allocating sufficient budgets for instruments, learning materials, and digital resources. Music should be recognized as an essential component of holistic education, especially for non-music majors in ethnic-region colleges. Policies encouraging professional development programs such as Kodály–Orff training, culturally responsive pedagogy, and active-learning strategies should be implemented to raise teacher competence and ensure instructional quality.

Practical Suggestions

Teachers are encouraged to integrate culturally relevant musical content, especially local ethnic traditions, to increase student motivation and identity connection. Classrooms should adopt student-centered approaches such as collaborative ensemble tasks, movement-based learning, and reflective activities to enhance cognitive, affective, and behavioral engagement. The guidelines developed in this study can serve as a framework for designing structured lessons, aligning tasks with musical objectives, and providing opportunities for active participation and peer learning.

Suggestions for Future Research

Future studies should examine long-term impacts of music-based interventions on academic achievement, emotional well-being, and creativity, using larger and more diverse student samples. Comparative studies across different universities or ethnic regions could help validate the generalizability of the proposed guidelines. Additionally, experimental research using control groups, longitudinal tracking, or digital music-learning platforms may provide deeper insights into how music education influences learning effectiveness in various contexts.

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