



The Balance Between Guzheng Education and Cultural Heritage Protection, Innovation, and Sustainable Development

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Abstract

Background and Aims: The guzheng, as a traditional Chinese musical instrument, carries rich historical and cultural significance along with musical traditions. However, with societal development and the influence of globalization, guzheng education and cultural heritage, this paper examines. The Balance Between Guzheng Education and Cultural Heritage Protection, Innovation, and Sustainable Development. As an important component of Chinese culture, guzheng carries a rich history, values, and musical traditions. However, facing the rapid changes in contemporary society and the integration of diverse cultures, Guzheng education faces the challenge of protecting tradition and promoting innovation.

Methodology: The study will explore the significance of Guzheng education in protecting cultural heritage. The target population is divided into 90 Students of Guzheng, 50 from different Guzheng training institutions, Guzheng teachers 20 covering teachers of different teaching experience and levels, Zither players, 15 including professional performers and amateur culturalists, and five scholars and experts in the field of Guzheng culture.

Results: The protection tradition, promoting innovation, and achieving a balance of sustainable development can continue to play an important cultural value in contemporary society and provide students with a unique music learning experience. It is important to strike a balance between cultural heritage, including protection, innovation, and sustainable development.

Conclusion: Additionally, it is necessary to enhance support and training for teachers to help them improve their teaching levels and effectiveness. Teachers are key, to only by continually improving their professional skills and teaching abilities can the goals be better achieved.

Keywords: Guzheng; Heritage; Sustainable; Development





Introduction

The guzheng, as a traditional Chinese musical instrument, carries rich historical and cultural significance along with musical traditions. (Li & Li, 2024) However, with societal development and the influence of globalization, guzheng education and cultural heritage face a balancing challenge between preservation and innovation. (Cheng, 2023) This challenge involves how to inherit ancient culture while aligning. (Peirong et al. 2023) It meets the needs and values of modern society, ensuring the continued inheritance and development of guzheng culture in contemporary times. (Cao & Kantasiri, 2023) On the one hand, preserving traditional culture is a crucial task in the development of guzheng education, contributing to the inheritance of historical memory, core values, and performance techniques, ensuring. (Guo et al 2024)

As a traditional art form, how the guzheng can harmonize with the new demands for music in modern society while preserving its uniqueness becomes an urgent issue. (Zhao et al. 2023) Under the tide of globalization, guzheng culture also has broader opportunities for dissemination. (Du & Wang, 2024) Utilizing modern technologies such as online education platforms and virtual reality, guzheng education can overcome geographical limitations, allowing more students to access this traditional art form. However, this also brings about a series of issues, including how to maintain respect for traditional culture in a digital teaching environment, how to preserve the core values of traditional culture in innovation, and the potential neglect of conventional values in innovative teaching methods, making the inheritance of traditional music techniques challenging. (Huang et al. 2024)

Objectives:

The core objective of this research is The Balance Between Guzheng Education and culture. Heritage Protection, Innovation, and Sustainable Development

Literature Review

Education and Cultural Heritage

Cultural heritage and education are closely related since education is essential to maintaining, passing down, and changing cultural customs over time. Identity formation and social cohesion are facilitated by cultural heritage, which encompasses material objects, customs, language, and values (Smith, 2021). Important venues for the transmission, critical analysis, adaptation, and revitalization of cultural heritage include schools, colleges, and informal learning settings. A sense of belonging and an awareness of many worldviews are fostered by the interplay between education and cultural heritage, which is crucial for global citizenship.





The preservation of indigenous knowledge and customs is one of education's main roles regarding cultural heritage. To preserve their languages, storytelling traditions, and practices that may otherwise be lost as a result of modernity and globalization, many indigenous people rely on educational systems (Battiste, 2013). Rather than being marginalized or supplanted by prevailing cultural narratives, culturally responsive pedagogy guarantees that these traditional modes of knowing are honored and integrated into formal curricula. This method of teaching not only helps indigenous students feel more connected to their culture, but it also makes society more accepting of a wider range of cultural displays.

Additionally, education is essential for developing intercultural competency and cultural awareness. People need to be able to comprehend and appreciate many cultural viewpoints as civilizations grow increasingly intertwined. According to Banks (2019), multicultural education fosters intercultural communication, tolerance, and a decrease in prejudice. Students gain the abilities needed to successfully traverse multicultural situations and become more adaptive and compassionate global citizens by incorporating a variety of histories, literary works, and artistic expressions into educational programs.

Education on cultural heritage also supports social progress and long-term economic viability. Cultural sectors that support national economies and create job opportunities include tourism, the arts, and heritage conservation (UNESCO, 2020). Careers in museum studies, historic preservation, and cultural entrepreneurship are prepared for by educational institutions that prioritize cultural heritage training. Furthermore, by motivating students to actively participate in the preservation and promotion of their local and national history, heritage education promotes civic engagement and guarantees their ongoing significance in modern society.

The preservation and dissemination of cultural assets have undergone significant change as a result of the incorporation of digital technologies into schooling. Cultural artifacts and historical knowledge can be shared globally through digital archives, virtual museums, and interactive learning platforms (Silverman, 2015). These technology developments offer creative teaching strategies that better engage students and increase access to cultural material for a larger audience. However, educators must carefully handle the ethical challenges surrounding digital representation, such as those about data ownership and cultural appropriation.

In conclusion, education is an essential tool for the preservation, appreciation, and advancement of cultural heritage. In an increasingly globalized society, education ensures that cultural traditions are meaningful and relevant, whether through official curricula, community involvement, or digital advances. Finding a balance between the need for flexibility and diversity in learning environments and the preservation of cultural heritage is a problem for educators and





legislators. Education enables people to appreciate, conserve, and add to the rich tapestry of human cultural diversity by promoting cultural literacy and critical engagement with heritage.

Methodology

Research Background: Balancing Challenges in Guzheng Education and Cultural Heritage. Problem Statement: Balancing Traditional Preservation and Innovation in Guzheng Education. Rationale for the Study: The study will explore the significance of Guzheng education in protecting cultural heritage. The target population is divided into 90 Guzheng, 50 from different Guzheng training institutions, Guzheng teacher 20 Guzheng teachers of different teaching experience and levels, Zither players, and 15 professional performers and amateur culturalists 5 There are scholars and experts in the field of Guzheng culture, exploring the Relationship between Guzheng Education and Cultural Heritage. Research Question: Critical Examination of Protection, Innovation, and Sustainable Development. Research Objectives: Strategies to Balance Guzheng Traditions and Contemporary Demands.

Research Design

The research design is a crucial component of this study, aiming to explore the balance between Guzheng education and cultural heritage and promote the sustainable development of Guzheng culture. To achieve this goal, the study employs the following research design: Quantitative Method.

Population and Sample Size

To achieve the research goal of exploring the balance between Guzheng education and cultural heritage, this study employs a series of research methods to investigate the relationship between preservation and innovation. Initially, we conducted a literature review to understand previous research and findings related to Guzheng education and cultural heritage. This step helped establish a fundamental understanding of the cultural transmission of Guzheng, laying the groundwork for subsequent research.

In the research design phase, data were collected through the study sample. We selected Guzheng students, teachers, performers, and cultural experts involved in Guzheng education and cultural transmission as our sample subjects. These participants not only possess rich knowledge and experience in Guzheng but also offer unique insights into Guzheng education and cultural transmission.

Population and Sample Size Data Table

Table 1 Population and Sample Size Data Table





Number	Target population	Sample size	Sample source	Interview duration
1	Student of guzheng	50	From different guzheng training institutions	Average 30 minutes
2	Guzheng teacher	20	Covers teachers with different teaching experiences and levels	Average 45 minutes
3	Zither player	15	Including professional performers and amateurs	Average 60 minutes
4	culturalist	5	There are scholars and experts in the field of Guzheng culture	Average 90 minutes

Various methods, including interviews, surveys, and observations, were employed for data collection. Interviews involved in-depth conversations with Guzheng students, teachers, performers, and cultural experts to understand their perspectives and experiences regarding Guzheng education and cultural transmission. Surveys were utilized to gather a larger amount of data, capturing opinions and views from a more extensive range of participants. Observations allowed direct insight into Guzheng's teaching and performance processes, revealing practices related to preservation and innovation.

During the data analysis phase, quantitative methods were used to analyze the collected data, extracting key viewpoints and themes from interviews and observations, while quantitative analysis involved statistical methods to process survey data, providing insights into the opinions and attitudes of different groups.

Through the outlined research design steps and methods, this study aims to derive significant conclusions regarding the balance between Guzheng education and cultural transmission. These conclusions will guide the development of Guzheng education, promoting the protection and sustainable development of Guzheng culture. Furthermore, these findings will offer valuable insights and references for other cultural transmission education, expanding the theoretical and practical aspects of heritage education. To achieve a successful exploration of the balance between preservation and innovation, future research should continue to explore new perspectives on Guzheng education and cultural transmission and investigate additional strategies and methods. Through this series of research steps and methods, a successful exploration of the balance between Guzheng education and cultural transmission is anticipated.

Data Analysis

The Balance Between Guzheng Education and Cultural Heritage Protection, Innovation, and Sustainability. To achieve this objective, relevant data on Guzheng education and cultural transmission were collected, and appropriate statistical methods were employed for analysis.

On the one hand, we obtained practical information and participants' opinions on Guzheng education through surveys. Surveys were conducted among teachers, students, and enthusiasts





involved in Guzheng education, providing data on their needs in Guzheng education, views on traditional culture, and expectations for innovative teaching methods. Through statistical analysis of this data, we identified issues and demands within Guzheng education.

On the other hand, learning outcomes in Guzheng education. By statistically analyzing students' performance and grades during the learning process, we evaluated the differences in effectiveness between traditional and innovative teaching methods. Data on students' grades, learning progress, and feedback were collected and analyzed using appropriate statistical tools to compare the differences and advantages between traditional and innovative teaching.

Simultaneously, an analysis of the inheritance and performance techniques of Guzheng musical works was conducted. By collecting and comparing performances of classic Guzheng pieces, as well as examining the application of different performance techniques, we analyzed the extent of preservation of traditional performance techniques, the application of innovative performance techniques, and the impact of different techniques on musical expression. Statistical analysis of this data provided insights into the current status and issues of Guzheng music inheritance and innovative performance techniques, offering specific guidance and strategies for Guzheng education.

Through a literature review, we synthesized and analyzed results from relevant domestic and international studies. By comparing various research methods, theories, and conclusions, we further deepened our understanding of the relationship between Guzheng education and cultural transmission, gaining insights and inspiration for this study.

Through the aforementioned data analysis, we will obtain specific analytical results regarding the current status, issues, and demands of Guzheng education and cultural transmission. This will serve as a scientific basis and guidance for achieving a balance between preservation and innovation. It will aid in the formulation and implementation of effective strategies for preservation and innovation, fostering the sustainable development of Guzheng culture.

Results

This analysis will delve into the data from each aspect, uncovering key trends, issues, and opportunities within Guzheng education. By meticulously interpreting survey questionnaires, assessing learning outcomes, analyzing the transmission of Guzheng music works and performance techniques, and conducting a comprehensive review of relevant literature, I will present a thorough overview of the current state and potential future directions of Guzheng education. This analysis not only helps us understand the current educational landscape but also provides valuable insights for future improvements and innovations.

Differences in Effectiveness Between Traditional and Innovative Teaching Methods.

Learning Outcomes Assessment Data

Table 2 Comparison of Learning Effects between Innovative Education Method and Traditional Education Method





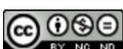
PROJECT		TRADITIONAL EDUCATION METHOD	INNOVATIVE EDUCATION METHOD
Learning Performance Comparison	Midterm Exam Average Score	75.4	82.3
	Final Exam Average Score	78.2	85.6
	Regular Test Average Score	76.1	83.9
	In-school Guzheng Competition Award Ratio	30%	45%
	Out-of-school Guzheng Competition Award Ratio	25%	40%
	Music Grade Exam Pass Rate	70%	85%
Learning Progress Comparison	Fingering Improvement Rating	3.5/5	4.2/5
	Speed Improvement Rating	3.6/5	4.3/5
	Pitch Accuracy Improvement Rating	3.4/5	4.1/5
	Tone Quality Improvement Rating	3.7/5	4.4/5
	Repertoire Proficiency Rating	3.8/5	4.5/5
Learning Attitude and Engagement Comparison	Music Theory Mastery Rating	3.5/5	4.3/5
	Learning Interest Rating	3.6/5	4.4/5
	Frequency of Extracurricular Practice	3 times/week	5 times/week
Student Feedback Comparison	Classroom Participation Rating	3.7/5	4.5/5
	Learning Satisfaction Rating	3.5/5	4.3/5
	Difficulty Encountered Rating	4.0/5	2.8/5
	Future Teaching Expectation Rating	3.6/5	4.4/5

Discussion

Analysis of Learning Performance:

Data comparing learning performance indicates that students using innovative education methods significantly outperform those using traditional methods in midterm exams, final exams, and regular tests, with average scores higher by 6.9, 7.4, and 7.8 points, respectively. Additionally, the award ratio for in-school and out-of-school guzheng competitions increased by 15% and 15%, respectively, among students using innovative methods. The pass rate for music grade exams also improved by 15%. These data suggest that innovative education methods have a clear advantage in enhancing students' academic performance and playing skills, likely due to a greater focus on personalized learning needs and the use of diverse teaching techniques that stimulate student interest and engagement.

Analysis of Learning Progress:





In terms of learning progress, students using innovative education methods show higher improvement ratings in fingering, speed, pitch accuracy, and tone quality, with an average increase of about 0.7 to 1 point. Proficiency in repertoire and mastery of music theory also increased significantly by 0.7 and 0.8 points, respectively. These data indicate that innovative education methods are more effective in helping students master playing techniques and music theory, possibly due to the incorporation of multimedia teaching and interactive teaching methods that provide more practice and guidance in actual performance.

Analysis of Learning Attitude and Engagement:

Students using innovative education methods show a higher learning interest rating of 0.8 points, practice more frequently outside of class (2 additional times per week), and have a higher classroom participation rating of 0.8 points. This suggests that innovative education methods significantly increase students' interest and enthusiasm for learning, as well as their extracurricular practice time and classroom participation. This may be because innovative education methods incorporate novel and interactive teaching techniques, making the learning process more enjoyable and rewarding for students.

Analysis of Student Feedback:

Student feedback shows that those using innovative education methods have a higher learning satisfaction rating by 0.8 points, encounter fewer difficulties (difficulty rating reduced by 1.2 points), and have higher future teaching expectations by 0.8 points. This suggests that innovative education methods improve student satisfaction, reduce learning difficulties, and generate higher expectations for future teaching. This may be because innovative education methods focus more on students' individual needs, using diverse teaching methods and better teaching resources to help students overcome learning challenges, thus improving their overall learning experience and satisfaction.

Conclusion

The background information of teachers reveals the diversity and professionalism within Teachers vary in age, gender, educational background, and teaching experience, bringing a wealth of teaching methods and philosophies to guzheng education. Many teachers face challenges related to updating teaching materials and innovating teaching methods, indicating that guzheng education must continually adapt to changing times. By integrating modern educational technologies and approaches, teachers can better meet students' diverse needs. Teachers' perspectives on traditional culture also emphasize the importance of preserving traditional guzheng pieces and techniques, highlighting the need to continue supporting teachers in this area and providing them with more resources and training opportunities.

Analysis of teaching content and methods shows that there are certain limitations in the current curriculum and teaching approaches. Many teachers still rely on traditional textbooks and methods, which, while beneficial for preserving cultural heritage, may not fully meet students' needs in a modern educational context. To enhance teaching effectiveness and student





engagement, it is crucial to explore innovative teaching methods, such as multimedia instruction and interactive teaching software. This not only helps students better understand and master guzheng techniques but also makes guzheng education more lively and interesting.

Teachers have expressed a strong demand for updated teaching resources, materials, and methods. The development of modern educational technologies presents numerous new possibilities, such as online teaching platforms and virtual reality technology, but their application remains limited. Encouraging and supporting teachers to experiment with and implement these new technologies, along with providing appropriate training and resources, can help improve teaching quality. Addressing teachers' needs will enhance the overall level of promoting the inheritance and innovation of guzheng culture.

Teachers' commitment to preserving and passing on indicates that traditional culture still holds a significant place. However, as times change, students' understanding and acceptance of traditional culture are also evolving. Thus, it is essential to strike a balance in education by both preserving and. This approach can maintain the cultural essence while giving it new vitality in modern society.

From the above data analysis, it is clear that there needs to be a balance between preserving traditional culture and promoting innovation. It is essential to focus on the protection of traditional culture in teaching, inheriting the essence while actively exploring and applying modern educational technologies and methods to stimulate students' interest and enthusiasm. Combining traditional and modern elements can make meetings livelier and more interesting, meeting different students' needs and promoting the inheritance and innovation of guzheng culture.

Finally, the support and involvement of parents and enthusiasts are also crucial factors. By meeting the expectations of parents and enthusiasts, the influence and recognition of guzheng education can be enhanced, promoting the inheritance and development. More learning and communication opportunities should be provided to help them improve their musical and cultural literacy, further promoting inheritance and innovation. By integrating the above analyses and suggestions, we believe that a balance between protection and innovation can be achieved, promoting sustainable development.

Recommendation

Suggestion of research

The pedagogical methods proposed by us for the analysis, protection, and innovation of the relationship between guzheng education and cultural inheritance will provide guidance.

At the same time, we also expect that the strategy and enlightenment of this study can provide a reference for other cultural heritage education

Suggestion of further research

1. To explore new perspectives and cultural heritage to promote.





2. The harmonious rhythm of Guzheng education will become our joint efforts to pursue the inheritance of Guzheng culture.

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