



A Study on the Internal Logic and Effective Strategies of the Innovative Development of Ecological Teaching of Music in Colleges and Universities

Saifei Xu*

¹ Master candidate, School of Music and dance, Xuchang College, Henan, China, 461000

* Corresponding Author: 12014272@xcu.edu.cn

Citation: Xu, S. (2025). A Study on the Internal Logic and Effective Strategies of the Innovative Development of Ecological Teaching of Music in Colleges and Universities. *Mediterranean Archaeology and Archaeometry*, 25(1), 279-284.

ARTICLE INFO

Received: 25 April 2024

Accepted: 15 May 2024

ABSTRACT

In order to promote the development of music ecological teaching, we put forward the research on the internal logic and effective strategy of the innovative development of music ecological teaching of higher education. The significance of music ecological teaching is analyzed from the aspects of meeting social demand, improving teaching level and helping students' development, and the internal logic of music ecological teaching is analyzed from the perspectives of ecological teaching elements, operation mechanism and character, and the targeted effective strategies for the realization of innovation and development of music ecological teaching are given in combination with the analysis results.

Keywords: Ecological teaching of music; Innovative development; Internal logic; Effective strategy; Teaching elements; Operation mechanism; Teaching character;

INTRODUCTION

From the perspective of music teaching of higher education, the innovative development guided by ecological teaching has brought significant positive changes to the actual teaching work [1-2]. First of all, college music teaching under the guidance of ecological teaching pays more attention to students' subjectivity and creativity. Teachers are no longer simply knowledge imparters, but guides and partners for students to learn music [3-4]. Students are encouraged to actively participate in the teaching process and actively build their own music knowledge system through interaction, cooperation and inquiry. This teaching method not only improves students' interest and enthusiasm in learning, but also cultivates students' innovative thinking and problem-solving ability. Secondly, ecological teaching promotes the diversification and individuation of music teaching [5-6]. In the teaching process, teachers design different teaching tasks and activities according to students' interests, abilities and needs to meet students' personalized learning needs. At the same time, teachers also pay attention to interdisciplinary teaching integration, connecting music with other art forms, cultural backgrounds and social phenomena, so as to broaden students' musical vision and cultural literacy. Literature [7] proposed an innovative model of music education curriculum of higher education based on digital multimedia VR technology, and it is used to create an immersive music learning environment for students, as if they were in a real music scene. This technology not only improves students' learning interest and participation, but also enables them to understand the connotation and expression form of music works more intuitively. In addition, VR technology can also be used for distance teaching and collaborative learning, breaking the restrictions of time and space, making music teaching more flexible and efficient. Literature [8] proposed an innovative model of music education and teaching based on blockchain technology, showing new features in copyright protection, benefit distribution, business model, etc. The decentralized, transparent and tamper proof features of blockchain technology provide a more fair, safe and reliable environment for music education and teaching. At the same time, through blockchain technology, the copyright of music works can be effectively protected, and the rights and interests of creators can be more reasonably allocated. At the same time, blockchain technology has also brought new business models and cooperation methods to music education and teaching, and promoted the innovative development of the music industry. The inspiration of these two innovative models for music teaching lies in that they both provide more advanced, efficient and diversified teaching means and resources for music teaching. Digital multimedia VR technology creates a more authentic, intuitive and interesting learning environment for music teaching, while blockchain technology provides a more fair, safe and reliable teaching guarantee for music education and teaching. In the future, college music

teaching also needs to actively explore and introduce these innovative models and technical means, constantly improve the teaching quality and effect, and cultivate more music talents with innovative spirit and practical ability.

For this reason, this paper proposes a study of the internal logic and effective strategies for the innovative development of music ecological teaching of higher education.

1 AN ANALYSIS OF THE INNOVATIVE VALUE OF ECOLOGICAL TEACHING OF MUSIC OF HIGHER EDUCATION

For the value of ecological teaching innovation, this paper analyzes the value from the perspectives of meeting the social demand, improving the teaching level and assisting the development of students.

1.1 Meeting the needs of society

From the perspective of meeting social demand, ecological teaching innovation can better adapt to the changing social demand for music talents. With the rapid development of cultural industry and the popularization of music art, the social demand for music talents is becoming more and more diversified and specialized^[9-10]. As an important base for cultivating music talents, universities can better connect with the social demand by carrying out ecological teaching innovation, and cultivate music talents with solid music theory foundation, as well as innovative ability and practical experience. Such musical talents can better meet the needs of the society and contribute to the development of the music industry^[11-12].

1.2 Improvement of teaching standards

From the perspective of improving teaching level, ecological teaching innovation can promote the reform and progress of music teaching methods. The traditional music teaching method often focuses on the instillation of knowledge and skill training, but neglects the subjectivity and creativity of students^[13-14]. Ecological teaching innovation emphasizes student-centeredness, focuses on students' participation and experience, and stimulates students' interest and motivation through diversified teaching means and methods. Such a teaching method can not only improve the teaching effect, but also cultivate students' innovative thinking and practical ability, so that it is more in line with the requirements of the modernization of education^[15-16].

1.3 Contribute to the development of students

From the point of view of facilitating students' development, ecological teaching innovation can help promote students' overall development. Music is a highly comprehensive art discipline, which can not only cultivate students' aesthetic ability and creativity, but also cultivate students' sentiment and improve their cultural literacy^[17-18]. Eco-teaching innovation allows students to explore and discover freely in the ocean of music by providing richer and more diversified teaching contents and environment, thus stimulating their potential and creativity. At the same time, ecological teaching also focuses on cultivating students' spirit of cooperation and communication skills, so that they can grow and progress through cooperation and communication with others. This kind of teaching not only helps students' personal development, but also lays a solid foundation for their future career and social life^[19-20].

2 AN ANALYSIS OF THE INTERNAL LOGIC OF TEACHING MUSIC ECOLOGICALLY

2.1 Logic of ecological pedagogical elements

Analyzed from the perspective of the elements of ecological teaching, the internal logic of music ecological teaching is mainly reflected in the interrelatedness and harmonious symbiosis of the elements of teachers, students, teaching content and teaching environment^[21-22]. The details are shown in Table 1.

Table 1 Logic of the elements of teaching music ecologically

Elements	Effect	Value requirements
teacher	Not only the transmitter of knowledge, but also the guide and partner in the journey of student music learning	It is one of the key elements of music ecological teaching, which requires a deep theoretical literacy and practical experience in music, the ability to flexibly adjust teaching strategies according to the needs and characteristics of students, and create an inspiring teaching environment
student	Their learning needs and individual differences are important basis for instructional design and implementation	It is the main body of music ecological teaching, which emphasizes the active participation and experience of students. Through diverse teaching methods and methods, it stimulates students' learning interest and creativity, and cultivates their music perception and expression abilities.
Teaching content	Contains rich music knowledge, skills, and emotional experiences to meet the comprehensive development needs of students	It is the core of music ecological teaching, which should fully consider the age, interests, and cognitive level of students, pay attention to the combination of theory and practice, and enable students to achieve comprehensive improvement in music learning
Teaching environment	Provided a good learning and teaching platform for students and teachers	It is an important support for the ecological teaching of music, emphasizing the comfort and openness of the teaching environment, and emphasizing the integration and optimization of

teaching resources to ensure the smooth progress of teaching activities

Combined with the analysis in Table 1, teachers, students, teaching content and teaching environment are interrelated and interact with each other in the ecological teaching of music, together constituting the ecosystem of music teaching. In this system, each element maintains dynamic balance and harmonious development, and jointly promotes the progress and development of music teaching. By optimizing the configuration and relationship of these elements, we can better achieve the goal of music ecological teaching and cultivate more musicians with innovative spirit and practical ability.

2.2 The internal logic of the operating mechanism of music ecological teaching

From the perspective of the operating mechanism of ecological teaching, the internal logic of music ecological teaching is mainly embodied in the process of dynamic balance, interactive symbiosis and sustainable development^[23-24]. First of all, dynamic balance is the core of the operating mechanism of music ecological teaching. In music ecological teaching, all teaching elements-teachers, students, teaching content and teaching environment-do not exist in isolation, but interact and influence each other. The result of this interaction is the formation of a dynamic and balanced teaching system. Specifically, as shown in Figure 1.

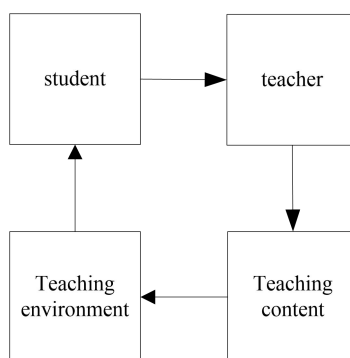


Fig. 1 Interactive symbiotic relationships

In this system, each element is constantly adjusting its own state to adapt to the changes of other elements, so as to maintain the balance and stability of the whole system^[25]. Secondly, interactive symbiosis is another important feature of the operating mechanism of music ecological teaching. In music ecological teaching, there are close interactions between teachers and students, between students and students, and between people and the environment. This kind of interaction is not only reflected in the transfer of knowledge and skills training, but also in the exchange of emotions, the collision of ideas and cultural heritage. Through this interaction, teachers and students can grow and progress together, realizing the goal of teaching and learning together. Finally, sustainable development is the ultimate goal of music ecological teaching mechanism. Music ecological teaching not only focuses on the current teaching effect, but also pays more attention to the long-term impact of teaching. It is dedicated to cultivating students' lifelong learning ability and innovative spirit, so that they can continue to develop and progress in their future learning and work. At the same time, music ecological teaching also pays attention to its own sustainable development, and constantly absorbs new teaching concepts and methods to adapt to the changes of the times and the needs of the society.

2.3 The logic inherent in the ecological pedagogical character of music

Analyzed from the perspective of the character of ecological teaching, the internal logic of music ecological teaching is mainly embodied in the three core qualities of authenticity, harmony and development.

First of all, authenticity is the cornerstone of music ecological teaching. It requires music teaching to be close to the students' life, reflect the real needs of the society, and let the students feel and understand music in the real music situation. This authenticity is not only reflected in the selection of teaching content, but also in the use of teaching methods and the creation of the teaching environment. Through the real music experience, students can understand the connotation of music more deeply, thus stimulating the love and pursuit of music. Secondly, harmony is the soul of music ecological teaching. It emphasizes the harmony between teachers and students, between students and students, and between people and the environment. In music ecological teaching, the teacher is no longer an authority, but a partner of equal communication and mutual respect with the students; the students are no longer the containers of passive knowledge, but the main body of active participation and active creation. At the same time, the teaching environment should also present a harmonious, comfortable, creative atmosphere, so that teaching activities can be carried out in a pleasant, relaxed atmosphere. Finally, development is the goal of music ecological teaching. It emphasizes the cultivation of students' creative and practical abilities, and lays a solid foundation for their future development. Music ecological teaching not only focus on students' current music knowledge and skills, but also on the development of their music literacy and comprehensive ability. By ecological teaching, students can gradually build up their own music aesthetic system, form unique music styles, and prepare for their future music career.

3 EFFECTIVE STRATEGIES FOR INNOVATIVE DEVELOPMENT OF ECOLOGICAL TEACHING AND LEARNING IN MUSIC

3.1 Innovative development strategies for ecological teaching and learning of music based on the elements of ecological

First of all, build a harmonious teacher-student relationship. In the ecological teaching of music, teachers and students are the two main subjects in teaching activities, and the relationship between them directly affects the teaching effect. Therefore, teachers should respect students, understand students, pay attention to students' personality differences and learning needs, and try to create a relaxed, harmonious and democratic teaching atmosphere. At the same time, students should respect teachers, trust teachers, actively participate in teaching activities, and explore the mystery of music with teachers. Secondly, optimize the content of music teaching. The ecological teaching of music requires rich and diversified teaching contents, which can be close to students' real life and reflect the real needs of the society. Therefore, teachers should select representative, classical and contemporary music works according to the age, interest and cognitive level of students, so that students can feel the charm of music in appreciation, learning and creation. At the same time, teachers should also pay attention to the integration of interdisciplinary teaching, linking music with other art forms, cultural backgrounds and social phenomena, so as to broaden students' musical horizons and cultural literacy. Once again, create an ecological teaching environment. The teaching environment is an important support for the ecological teaching of music, which directly affects students' learning experience and teaching effect. Therefore, schools should increase the investment in music teaching facilities, improve the hardware facilities of music classrooms, and provide teachers and students with a spacious, bright and comfortable teaching space. At the same time, teachers should also focus on the soft construction of the teaching environment, like creating a harmonious teaching atmosphere, establishing a good classroom culture, etc., so that teaching activities can be carried out in a pleasant and relaxed atmosphere.

3.2 The innovative development strategy of music ecological teaching based on the ecological teaching operation mechanism

First, a dynamically balanced teaching system should be established, and ecological teaching emphasizes dynamic balance and harmonious symbiosis among all elements. This means that we need to pay attention to the interaction and mutual influence between teachers, students, teaching content and teaching environment to ensure that the relationship between them is coordinated and balanced. This is illustrated in Figure 2.

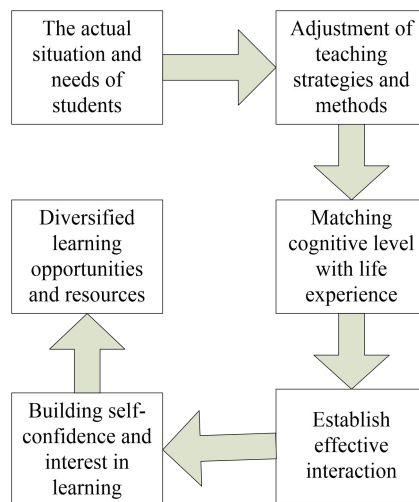


Fig. 2 Innovative development strategy of music ecological teaching based on ecological teaching operation mechanism

Combined with Figure 2, based on the ecological teaching operation mechanism, teachers can flexibly adjust teaching strategies and methods according to the actual situation and needs of students, so that the teaching content is in line with the cognitive level and life experience of students. At the same time, students should actively participate in teaching activities, interact with teachers and other students to build an active and harmonious teaching atmosphere. Secondly, to promote interactive symbiotic teaching process, in the ecological teaching of music, we should promote effective interaction between teachers and students to motivate students' initiative and creativity. Teachers can lead students to actively take part in in classroom activities and express their own views and ideas by organizing group discussions and cooperative performances. At the same time, teachers should also pay attention to the emotional needs of students, give them enough care and support, and help them build up self-confidence and interest in learning. In addition, cooperation and communication among students are also very important. They can learn from each other and inspire each other through sharing learning experiences and discussing problems together, so as to realize common progress. In addition, the teaching goal of sustainable development should be actively promoted. In this regard, in the ecological teaching of music, attention should be paid to the long-term development of the students, and their ability of lifelong learning and innovative spirit

should be cultivated. In order to realize this goal, teachers can focus on cultivating students' musical literacy and comprehensive ability, not only teaching musical knowledge and skills, but also leading students to take part in and understand the beauty of music, and cultivating their musical perception and expression ability. At the same time, teachers should also pay attention to the personalized development of students, respect their differences and strengths, and provide them with diversified learning opportunities and resources.

3.3 Effective strategies for the innovative development of music ecological teaching based on ecological teaching character

Firstly, we should keep the authenticity, close to the reality of life, that is, the teaching content and method should be closely connected with the students' life reality. In music ecological teaching, we should choose music works and teaching contents that are close to students' lives and reflect the real needs of the society, so that students can learn and experience in a real music environment. At the same time, teaching methods should also focus on authenticity, through simulation of actual scenes, role-playing and other ways, so that students learn and grow in practice. Secondly, we should pay attention to the pursuit of harmony and build a good teaching ecology. Efforts should be made to build a harmonious teacher-student relationship, student-student relationship, and the relationship between people and the environment. Teachers should respect students, care for students, and actively create a good atmosphere in the classroom; students should respect each other, help each other, and form a positive learning atmosphere; at the same time, the teaching environment should be coordinated with the teaching content and teaching methods to provide teachers and students with a comfortable and enjoyable learning space. In addition, it should emphasize the developmental aspect and cultivate the ability of lifelong learning. For this, in the ecological teaching of music, attention should be paid to the individual differences and personalized needs of students, providing them with diversified learning resources and opportunities. At the same time, it should also emphasize the cultivation of students' creative thinking and practical ability, and encourage them to explore and dare to innovate. In addition, it should strengthen the connection and integration with other disciplines, so as to broaden students' knowledge horizons and comprehensive quality.

4 CONCLUSION

Ecological teaching emphasizes the harmony of the teaching environment, the participation of the student body and the diversity of teaching methods, and the application of this concept in music teaching of higher education makes the teaching work closer to the actual needs of the students and more in line with the essence of music education. This paper puts forward the internal logic and effective strategies for the innovative development of music ecological teaching of higher education. On the basis of clarifying the significance of music ecological teaching and combining it with the internal logic of music ecological teaching innovation and development, it gives the targeted realization strategies.

REFERENCES

- [1] Peter L .Innovation in the Teaching Mathematics: Rethinking the Foundational Principles that Underpin Teaching[J].Proceeding of the Singapore National Academy of Science, 2022,16(1):3-13.
- [2] Yifei W , Yourong Y .Educational Innovation in Lying Flat Phenomenon-A Case Study of the Balinese Teaching Experience[J].Psychology Research, 2023, 13(4):167-175.
- [3] Qi Y .Editorial Innovation of Teaching Research Publications in the Digital Era[J]. Journal of Contemporary Educational Research, 2022, 6(4):5.
- [4]School of Music Researchers Detail Research in Artificial Intelligence (Online Education of a Music Flipped Classroom Based on Artificial Intelligence and Wireless Network)[J].Network Daily News, 2022,2022(Apr.25):21.
- [5] Silva D A L , Giusti G , Rampasso I S ,et al.Life cycle assessment teaching innovation: experiences from a Brazilian higher education institution[J].International Journal of Sustainability in Higher Education, 2023, 24(2):449-461.
- [6] Granado-Peinado M , Huertas J A .A Teaching Innovation Project on Writing Critical Essays in aHistory of PsychologyCourse:[J].Teaching of Psychology, 2023, 50(3):284-290.
- [7] Xiao H .Innovation of Digital Multimedia VR Technology in Music Education Curriculum in Colleges and Universities[J].Scientific programming, 2022,2022(Pt.14):6566144.1-6566144.9.
- [8] Yu H , Zou Z .The music education and teaching innovation using blockchain technology supported by artificial intelligence[J].International journal of grid and utility computing, 2023,14(2/3):278-296.
- [9] Zhang B .Research on the Teaching Innovation of Architectural Engineering Specialty in Vocational Colleges Based on Results-Oriented Education[J]. Journal of Contemporary Educational Research, 2022, 6(5):75-80.
- [10] Wang S .Classroom Reflection on Music Teaching — Take Robin Hood Primary School in the UK as an Example[J].Journal of Higher Education Research, 2022, 3(2):137-140.
- [11] Sun Y , Jin H .Innovation and Practical Methods of Music Education Path in Colleges and Universities under the Popularization of the 5G Network[J].Scientific programming, 2022,2022(Pt.16):1536911.11526911.7.
- [12] Zhang Y , Wang W , Li Q ,et al.Teaching Design of" Digital Logic Design" Course Based on Blended Teaching Mode[J]. Computer Education, 2022(12):9-13.
- [13] Xixian G .Grassland Tunes The first Asia-Pacific Music Festival went down in Inner Mongolia[J]. ChinaReportASEAN, 2023, 8(8):66-69.
- [14] Gascoigne R .Ulrich R.Lehner: The Inner Life of Catholic Reform: From the Council of Trent to the Enlightenment. New York: Oxford University Press, 2022; pp. xi + 294.[J].Journal of Religious History, 2023, 47(2):344-346.
- [15] Liang Y , Zhang W .Adaptive Model of Discrete Real-Time Linear Dynamic Logic for the Optimization of Big Data Game Education Mode[J].Scientific programming, 2022,2022(Pt.8):6185837.1-6185837.11.
- [16] Sutirni C , Zuccarini G , Maltieri M ,et al.Logic circuits and optical circuits: A teaching learning sequence to build quantum computation for high school students[J].Il Nuovo Cimento della Societa Italiana di Fisica, C. Geophysics and space physics, 2023,46C(3):80-1-80-10.
- [17]Duan Y, Liu C.Common Prosperity in Spiritual Life: The Generative Logic, Connotation of the Times and Implementation Paths[J].Teaching and Research, 2023, 57(3):38-46.
- [18] Guo H .Research on the Construction of the Quality Evaluation Model System for the Teaching Reform of Physical Education Students in Colleges and Universities under the Background of Artificial Intelligence[J].Scientific programming, 2022,2022(Pt.11):6556631.1-6556631.9.
- [19] Vaguine V .The Inner Structure of the Intrinsic Electron and the Origin of Self-Mass[J]. Journal Of High Energy Physics, 2023, 9(1):174-189.
- [20] Cao Y , Alkubaisy Z M , Stojanovic J ,et al.Appraisal of information and communications technologies on the teaching process by neuro fuzzy logic[J].Computer applications in engineering education, 2022,30(3):779-802.
- [21] Zhou W .The development system of local music teaching materials based on deep learning[J].Optik, 2023, 273:170421-170426.
- [22] Ma J .Russian Music Education Concept and Its Enlightenment to Chinese Music Teaching[J].Arts Studies and Criticism, 2022, 3(1):102-105.
- [23]WUJing.Experimental Study on Two Music Teaching Methods in Promoting Children's Music Rhythm and Learning Quality[J]. Educational Science, 2022(2):65-68.
- [24] Su L , Jiang Q .Erratum: A Knowledge-Based System for Children's Music Teaching Strategies Based on the Inheritance of Local Music Culture in Southern Jiangsu[J].International Journal of Pattern Recognition and Artificial Intelligence, 2022, 36(09)1-2.
- [25]He M B, Wan Z K. Simulation of Risk Assessment for Abnormal Emotional Fluctuations in Students Based on Big Data [J]. Computer Simulation, 2023, 40(9):247-250.