

## **Diversified Teaching Method in Basic Piano Course Instruction for Higher Education Teachers**

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Abstract: Diversified teaching plays an important role in the sustainable development of China's basic piano course instruction for higher education teachers. A diversified curriculum system should be designed to promote the development of each student, and efforts should be made to cultivate high-quality talents who can adapt to the various needs of the society as well as to promote the reform and development of basic piano course instruction for higher education teachers. The aim of this study was to explore the teaching of basic piano course for higher education teachers based on the diversified teaching method. The teaching methods use for basic piano course were analyzed in this study, and two research methods were used to carry out the present study so as to effectively improve the operation of the diversified teaching method. Through a survey of the current situation of piano instruction in two higher education faculties, we can see that the teaching of basic piano course in higher education is still dominated by the traditional teaching method although the majority of students preferred the diversified teaching method.

**Keywords:** Diversified teaching method; Piano teacher; Higher education; Foundation course; Music curriculum *Online publication:* March 9, 2023

#### 1. Introduction

Music education students should not only be proficient in the theoretical aspect of music performance, teaching, and practical knowledge, but also have strong vocal and instrumental skills for performance, music appreciation and aesthetic skills, knowledge of various types of works from all periods, and basic creativity skills <sup>[1,2]</sup>. In addition to these, the ability to handle a variety of events and competitions, along with some research skills, is required. Vocal lessons, piano lessons, and choral lessons, all require a solid foundation in piano. Additionally, improvisation, sight-reading, ear training, and music composition are all closely linked to piano <sup>[3,4]</sup>. A good foundation in piano is a great addition to a music educator's repertoire <sup>[5]</sup>. The task of a basic piano course in music education in tertiary institutions is challenging, and if it is taught through the traditional "group lesson" method, students with poor foundation in piano often tend to give up in the process of learning. This has led to a need for teachers to revamp old piano courses and explore new and diverse teaching methods for piano instruction <sup>[6]</sup>.

Trueman's research aimed to develop a glove with an integrated haptic interface to help new piano players learn and to allow them to play without a piano. In his study, analysis, design, development, implementation, and evaluation of the method were carried out. During the analysis phase, he identified and analyzed the needs of students and problems faced by them. During the design phase, he analyzed the practices that were commonly used to solve these problems and decided that a tactile glove might be suitable for solving the existing problems. During the development phase, he evaluated the development and format

of the product. The participants included in the study were requested to use the tactile glove over a period of time. Thereafter, their opinions of the product were recorded via video camera. Upon analysis of the recordings, it was found that the second version of the haptic glove improved the participants' level of musical recall<sup>[7]</sup>. In another study, Podder presented a visualization system course for distance piano learning, which involved the use of 5G network. In the course, the telepresenter provided a range of ways for adults to engage in online learning preparation. The idea of online communication in a network of instructors and learners was extraordinary. When considering training-based or executive-based courses, learning systems may exhibit poor sound quality, and the sound may be delayed due to poor network connection. Online learning offers adaptability and internationalization as well as the opportunity to interact with different individuals and bring them together in an online learning platform. The installation of remote sensors suggests that users of 5G network for distance learning view it from a common-sense perspective. Furthermore, there is a need to advance online piano training in guided practice <sup>[8]</sup>. Pervez has proposed a diverse range of teaching methods, combining heuristics, case studies, and participatory and miniclassroom teaching, based on the characteristics of students for traditional classroom teaching and provided concrete examples of the implementation of each teaching method. Through a combined analysis of questionnaires, student evaluations, and examination results, the applicability and effectiveness of the diversified teaching method in classroom teaching for environmental courses have been verified. The results of his research may provide some reference to the study of classroom teaching methods in environmental courses and related fields<sup>[9]</sup>. As the basis for future teacher training, teacher training colleges should keep up with the development of the times, carry out curriculum reform, and train teachers to adapt to the needs of the times and social development.

In the present study, both the questionnaire survey method and the literature analysis method were used to obtain two perspectives for in-depth research. First, through literature search, a large number of literature facts related to the diversified teaching method were comprehensively and accurately grasped; the advantages and the problems that arose in the implementation of basic piano course for higher education teachers were analyzed so as to explore the basic concept and teaching principles of the diversified teaching method. The findings were then validated at a city teacher training university and art college. Further explorations of the new problems identified are required.

## 2. Use of pluralistic pedagogy in basic piano course for higher education teachers

## **2.1. Basic piano theory course**

Piano lessons are the core subject of music major in normal universities, and they play an important role in music education in normal universities (piano learning is diversified and comprehensive)<sup>[10,11]</sup>. As the piano is the main instrument for music teaching in middle schools, it is even more difficult for music teachers who do not play the piano to obtain qualifications for high-school music instruction. Therefore, high school students should learn the piano through piano lessons so as to prepare for future music education.

The basic piano theory course and practical course in normal universities are two aspects of piano education; that is to say, the piano course in normal universities consists of a basic theory course and a practical course. The piano practical course is a course that focuses on operating the piano, and its teaching contents mainly include learning to play the piano and practicing music. Students are trained on piano operation skills by performing basic exercises, namely finger independence, hand coordination, tactile sensitivity, *etc.*, Students are taught various piano skills and trained to play the piano. Therefore, the piano practical course basically functions as a practical workshop <sup>[14]</sup>.

## 2.2. Basic idea of the diversified teaching method in basic piano course for higher education teachers

The diversified and open teaching method of piano teaching in higher education forms a structural teaching

mode based on the above reasons. The first is the establishment of plurality of subject content in current piano pedagogy, *i.e.*, plurality of teaching materials and teaching content. In this way, it empathizes with the lives of normal students and meets their practical needs. The focus of teaching remains, of course, on the learning and training of pedagogical theory and teaching skills.

Second, the current piano instruction, as a book-based form of teaching organization, is too rigid to build openness. Outstanding piano teachers should be invited to higher education institutions so that they can share their growth experiences with trainee teachers.

The diversified and open teaching method of piano teaching in higher education is not a 45-minute classroom teaching lesson, but a holistic teaching method for piano teaching courses. Therefore, in the context of operation, different micro-teaching methods should be adopted based on specific situations in order to achieve the best teaching effect for each teaching unit, each lesson, and each teaching activity.

# **2.3.** Teaching principles of the diversified teaching method of basic piano course for higher education teachers

#### (1) Student development needs

In the teaching process under the open and diversified teaching method, the principle of meeting the development needs of teacher-training students' vocational guidance is always adhered to. In the selection of teaching contents, teaching methods, and vocational training methods, the career development needs of teacher-training students are fully respected, and extensive opportunities and space are provided for these students to participate in teaching practice both inside and outside schools. In accordance with the theory of multiple intelligences, they are enabled to devote their valuable time to developing relevant vocational skills.

#### (2) Making full use of modern educational technology

When presenting outstanding examples in classrooms and conducting micro-teaching skill training, modern educational technology should be used. Video cameras and tape recorders can be used to record live teaching activities and lectures; placement reports should also be utilized to continually improve and enhance teaching skills, practical teaching skills, and teaching innovation through reproduction. In addition, multimedia classrooms can be utilized to produce and present teaching materials, and there should be some efforts to improve the ability of students to use modern educational technology.

#### 3. Questionnaire

In order to have a more comprehensive understanding of the current situation of basic piano course instruction, a survey was conducted in two music faculties (departments) in a city between Liaoning Normal University and Dalian University, during which questionnaires were distributed to the teachers and students of each faculty. The questionnaires were distributed to 100 students (sophomores, juniors, and seniors) from one of the two music faculties, 90 of which were valid, and 10 teachers, in which all were valid, as well as 150 students (sophomores, juniors, and seniors) from the other music faculty, 130 of which were valid, and 5 teachers, in which all were valid. The t-test formula was used in this study, as shown below.

$$t = \frac{\overline{X} - \mu}{\frac{\sigma X}{\sqrt{n}}} \tag{1}$$

$$t = \frac{\overline{X_1} - \overline{X_2}}{\sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}} (\frac{1}{n_1} + \frac{1}{n_2})$$
(2)

Equation (1) is a one-sample t-test, while equation (2) is a two-sample t-test; S is the sample standard deviation, and n is the sample size.

The results of the survey are presented in tabular form and analyzed in relation to the interviews and teaching observation in terms of diversified methods of piano teaching, curriculum, and the use of modern teaching technology.

#### 4. Analysis of the current situation

In the survey of frequently used teaching method and students' preferred teaching method, passive acceptance received the highest recognition as a frequently used teaching method, as shown in **Table 1**. Passive acceptance is a traditional teaching method, in which teachers teach and students learn. If this traditional teaching method is used, it will not be able to meet the needs and development of the new teaching philosophy. The second in line is demonstration-imitation, which is essential in piano teaching. In this method, through accurate and skillful explanations and demonstrations, guidance, and inspiration by the teachers, students can intuitively learn the basic movements and essentials of piano playing and gain a perceptual understanding that they have risen to a certain level of rationality for learning. In this way, students can better grasp the playing style and skills of a piece. In terms of the teaching methods used, all four teaching methods, individually, made up less than half of the questionnaires filled, suggesting that the students think that the teaching methods used in piano teaching are relatively homogeneous and the diversified and experiential teaching methods are less frequently used; however, 128 students showed interest in the diversified teaching method, as shown in **Figure 1**.

Teaching method	Frequently used teaching method	Preferred teaching method
Passive acceptance	102	30
Demonstration-imitation	51	7
Experiential	28	55
Diversified	39	128

#### Table 1. Number of students



Figure 1. Students' views on teaching methods

In the student questionnaire, 34.5% of students felt that the current piano course in higher education was dull and lacked diversity, as shown in **Figure 2**. The increase in course content requires an increase in lesson time; a reasonable arrangement of sufficient lesson time to meet the learning needs of students should not be overlooked. The lack of practicality of piano teaching materials, as perceived by 24% of students, is mainly manifested in the inability to adapt to the developmental needs of students under the new curriculum concept and is also one of the reasons for the singularity of students' choice of repertoire, as shown in **Figure 2**.



Figure 2. Problems in basic piano course

Modern educational technology has greatly enriched classroom teaching in terms of the application of multimedia. It has increased the interest in teaching and learning and is conducive to stimulating students' interest in learning. Moreover, it has increased the amount of information in teaching and learning and is conducive to developing students' musical and cultural horizons. Also, it has promoted the reform of music teaching and improved its efficiency. We should give full play to its advantages and role in teaching. However, the reality is not quite as it should be; the use of multimedia in piano teaching in higher education needs to be improved and developed. According to the survey done under the present study, there are only a few multimedia piano teaching equipment in the faculty, and it is easy to pinpoint other problems that are more prominent, such as the lack of understanding, operation, and maintenance of equipment among teachers, which may result in idle equipment or even damage to the equipment due to improper use and maintenance.

### **5.** Conclusions

Piano lessons in higher education are technical subjects. The enrichment of piano lessons and the development of the teaching system will be an impetus for the improvement and enhancement of music education. In terms of how to achieve this goal, diversified teaching, a reasonable teaching curriculum, and the training of students who are competent to take on the role of qualified music teachers in today's society

are the keys to the problems that need to be addressed in the teaching of piano lessons at present. The design of the diversified teaching method in this paper offers an alternative or reference to a new teaching method for the reform of teaching materials for piano pedagogy in higher education and the teaching of piano teachers in higher education. However, this method does not cover all the aspects of piano instruction in higher education. The research and application of piano teaching methods for higher education teachers require constant exploration, updating, and flexible use by piano educators.

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## **Disclosure statement**

The author declares no conflict of interest.

## References

- [1] Baker D, 2022, Book Review: Patrick Lo, Robert Sutherland, Wei-En Hsu, Russ Girsberger, Stories and Lessons from the World's Leading Opera, Orchestra Librarians, and Music Archivists. Journal of Librarianship and Information Science, 54(4): 818–819.
- [2] McKay C, Cumming J, Fujinaga I, 2021, Lessons Learned in a Large-Scale Project to Digitize and Computationally Analyze Musical Scores. Digital Scholarship in the Humanities, 36(Supplement\_2): 198–202.
- [3] Donchev R, Pescara E, Beigl M, 2021, Investigating Retention in Passive Haptic Learning of Piano Songs. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies, 5(2): 1–14.
- [4] Kinoshita R, Hayashi E, 2021, Performance Information Editing System for Player Piano Aiming at Human-Like Performance. Journal of Robotics, Networking and Artificial Life, 8(2): 99–103.
- [5] Molero D, Schez-Sobrino S, Vallejo D, et al., 2021, A Novel Approach to Learning Music and Piano Based on Mixed Reality and Gamification. Multimedia Tools and Applications, 80(1): 165–186.
- [6] Lewis R, 2020, 21st Century Piano Composition Competition Concert. Computer Music Journal, 43(2–3): 158–159.
- [7] Trueman D, Mulshine M, 2020, Preparing the Digital Piano: Introducing bitKlavier. Computer Music. Journal, 43(2–3): 48–66.
- [8] Podder SK, Samanta D, 2022, Green Computing Practice in ICT-Based Methods: Innovation in Web-Based Learning and Teaching Technologies. International Journal of Web-Based Learning and Teaching Technologies, 17(4): 1–18.
- [9] Pervez I, Sarwar A, Alam A, et al., 2022, An MPPT Method Using Hybrid Radial Movement Optimization with Teaching-Learning Based Optimization Under Fluctuating Atmospheric Conditions. Journal of Intelligent & Fuzzy Systems, 42(2): 807–816.
- [10] Aničić KP, Stapić Z, 2022, Teaching Methods in Software Engineering: A Systematic Review. IEEE Software, 39(6): 73–79.

- [11] Abdul Rahman Elbadawi IAQ, 2021, Investigating the Teaching of "Advanced Quality Methods" Through Lean Manufacturing Techniques in Industrial Engineering. International Journal of Computer Aided Engineering and Technology, 15(4): 529–537.
- [12] Behroozi F, Hassan Hosseini SM, Sana SS, 2021, Teaching-Learning-Based Genetic Algorithm (TLBGA): An Improved Solution Method for Continuous Optimization Problems. International Journal of System Assurance Engineering and Management, 12(6): 1362–1384.
- [13] Karthik Kannan AS, Appavu alias Balamurugan S, Sasikala S, 2019, A Novel Software Package Selection Method Using Teaching-Learning Based Optimization and Multiple Criteria Decision Making. IEEE Transactions on Engineering Management, 68(4): 941–954.

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