A QUALITATIVE CASE STUDY ON ENHANCING PIANO TEACHING STRATEGY IN CHINESE VOCATIONAL EDUCATION

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ABSTRACT

In China, a basic piano course is crucial in higher vocational art education, and its successful implementation relies heavily on a practical teaching model. The transmission-adoption teaching model is commonly used in Chinese higher education. This teacher-centered approach emphasizes the one-way transmission of knowledge, lacks interactivity and flexibility, and is difficult to meet students' individual needs. The study employed a qualitative research approach, utilizing document research, participant observation, and in-depth interviews. Participants included nine second-year students from Lanzhou Vocational and Technical College and three experienced piano teachers. The study found the following optimization strategies: optimizing the learning environment to enhance students' learning outcomes significantly, focusing on emotional engagement in learning to improve the effectiveness of the piano, assisting students with academic readiness before the basic piano course to reduce barriers to learning; and better meeting students' needs through adjusting class format that combines group and small group classes. The above study provides specific guidance for optimizing teaching practice in higher vocational piano education and provides support and practical reference for future higher vocational piano teaching models.

Keywords: *Higher vocational education, preschool education, transmission-adoption teaching model, basic piano course, piano teaching strategies.*

INTRODUCTION

With the development of higher vocational education in China, vocational colleges have become crucial in the education system. In recent years, higher vocational colleges have been expanding throughout China and gradually incorporating piano education into the core curriculum of preschool education majors (Guo & Cosaitis, 2019). As a fundamental vocational skills program, piano education impacts the future career development of higher vocational students profoundly. This is because, in higher vocational colleges, the Department of Preschool Education mostly sets up basic piano courses. These students' plans point to future kindergarten teachers, who should have some piano performance skills (Chang, 2022).

However, compared to students in the Conservatory of Music, students in higher vocational colleges may face more significant challenges due to a weak foundation in piano learning, a lack of social learning opportunities (Bai, 2021), insufficient practical skills in piano performance (Luo & Yang, 2022), a deficiency in musicality, and a dearth of understanding of music (Jiang, 2019). Exploring responses to the above challenges effectively through innovative teaching strategies is the core task of higher vocational art education nowadays.

Transmission-adoption Teaching Model

Today's basic piano courses in higher vocational colleges focus on teaching students' functional piano skills to meet the job market demands. The course content usually includes basic piano performance training, improvisation, and accompaniment skills (Guo & Pilz, 2020). The transmission-adoption model is the mainstream teaching model of basic piano courses. It is a teacher-centered teaching model that emphasizes the systematic transmission of knowledge, helping to ensure the standardization and consistency of teaching content. Especially in group class teaching, this traditional teaching model can ensure that all students receive the same knowledge content and information, efficiently transmitting a large amount of information, which is suitable for teaching basic skills and theories. The classroom progress under this model is easy to control (Wang, 2018).

On the other hand, the existing teaching model also has many disadvantages. For example, the model's single teaching method made it difficult to meet students' practical needs, as independent learning and the practical ability of higher vocational students may be insufficient (Xie, 2019). As a typical teaching method in the transmission-adoption model, group classes are often implemented in basic piano courses. This approach can optimize teaching resources as much as possible (Tie & Lai, 2015) and has advantages in transferring knowledge. However, because of the large number of students, teachers may face significant challenges in classroom management and balancing the teaching content (Wang, 2021).

Although this single skill-oriented model can help students master basic piano skills quickly, it is challenging to meet the comprehensive goals of vocational education. As vocational education demands more holistic development of students, piano teaching requires more flexible and diversified strategies (Zhenyu & Suttachitt, 2024).

The prevalence of the transmission-adoption model in Chinese vocational piano education is fundamentally based on a confluence of cultural, institutional, and economic elements. The Confucian tradition culturally emphasizes teacher authority, discipline, and standard information dissemination, which corresponds effectively with a teacher-centered educational strategy (Guo & Pilz, 2020). Exam-oriented evaluation systems and national curriculum standards promote systematic knowledge transmission at the institutional level because they guarantee that students satisfy predetermined competency thresholds in a regulated and effective manner (Ghaleb, 2024). Moreover, numerous vocational colleges in China encounter limitations in educational resources, including insufficient faculty and overcrowded classrooms. In these circumstances, group-based teaching using the transmission-adoption model is an effective method for delivering consistent knowledge to many students (Zhao, 2024). The wide variation in students' academic readiness requires teachers to design as normative a curriculum as possible to ensure that all students receive the same teaching content within the specified time, especially when it comes to teaching piano basics. Ultimately, in vocational education environments, students and teachers tend to emphasize efficiency and concrete outcomes, and this model is favored for its systematic approach and quantifiable learning outcomes(Tang & Chow, 2007).

In China's higher vocational education, the widespread use of the transmission-adoption teaching model arises not only from its operational efficiency and controllability but also from the support of two major theories in the field of educational psychology. First, the Behaviorist Learning Theory considers learning as observable behavioral changes triggered by external stimuli and stresses the internalization of skills through repetitive practice, timely feedback, and reinforcement (Anwar et al., 2024).

However, even with the advantages of the transmission-adoption model in the current educational context, educational practitioners continue to make common sense of introducing a variety of teaching models in enhancing the quality of teaching and active participation of students further.

The Task-Based teaching model promotes active knowledge development and problem-solving among students by providing specific musical tasks, thereby improving their musical creativity and practical performance skills (Sholeh et al., 2020). Bell (2010) used Project-Based Learning in designing a specific music project—a classroom concert performance showcase. The results proved that this teaching model

was effective in enhancing students' overall literacy and teamwork skills. The Flipped Classroom is an emerging model of teaching using modern multimedia technology, which emphasizes the integration of independent learning before class and interactive practice in class, encourages students to use the internet or learning apps, and helps students hold a greater interest in this model, and can effectively enhance the internalization of teaching content efficiency (Bishop & Verleger, 2013).

Blended Learning originated in the late 1990s and early 2000s, and American educational technology scholar Graham (2006), one of the main theoretical founders of the field, defined blended learning as "the systematic integration of online and face-to-face instruction in the same course." Exploring the use of blended learning in a basic piano course at a vocational college in China, Sun et al. (2025) found that the integration of online and offline teaching methods increased teaching flexibility, encouraged active student participation, and supported collaborative learning, confirming that the model has a positive role to play in piano teaching.

METHODOLOGY

Aim

With a higher vocational education context, this study explores the reasons affecting piano learning outcomes through interviews and observations of second-year students at L Higher Vocational College, with a document study to enhance the efficiency of the current piano teaching model.

Participants

Purposive and stratified sampling were used to recruit participants for this study. Based on the background survey data, second-year students (18-19 years old) of preschool education majors in L higher vocational colleges were selected for the study. The students were categorized into three levels according to their previous basic piano courses' standardized test scores: Excellent, Moderate, and Fail. Four students were randomly selected from each level, totaling twelve participants.

The sampling process was based on manual screening and random selection per background survey data to ensure a representative sample (van de Schoot, 2020). This tiered design would explore differences in piano learning among students at different academic levels. In addition, three L vocational college piano teachers were selected for this study to form a panel of experts, all excellent representatives of the Chinese higher education field, with an average of more than ten years of piano teaching and management experience, and all held a master's degree in music education. To protect the participants' privacy, pseudonyms were used for all participants in the study.

Study Design

The study is a qualitative exploratory study design with qualitative research methods. To ensure ethical compliance, the study entered a faculty approval process, obtained written informed consent from participants, and was reviewed by the Mahidol University Ethics Committee (No. MU-IRB-2023/156.1409) before the formal commencement of the study. This process provided for ethical compliance in data collection and analysis.

This study employed a qualitative case study design conducted over one academic year in the basic piano courses of L Vocational College. Before the study commenced, contextual information about higher vocational education in China and L College was collected. During the first semester, the researcher followed the existing teaching model and gathered data through interviews and observations of students' learning progress. Following data analysis, the researcher made targeted modifications (for example, the most frequent words that emerged during the interviews and observations were: poor practicing environment, multimedia teaching, career planning guidance, readiness for learning, lack of confidence in learning, group lessons, and small group lessons) to the teaching model during the second semester. After the academic year, further data analysis and consultations with an expert panel will be conducted to refine the teaching strategies based on the findings.

Data Collection

The study period was from 20 February 2023 to 28 January 2024, covering two consecutive semesters of the basic piano course. This compulsory course for preschool education majors has two 45-minute class periods per week, totaling 31 lessons in the first semester and 32 lessons in the second semester. Data collection for this study was conducted through classroom observations and interviews, focusing on students' piano learning experiences under the traditional teaching model.

The researcher applied structured observations in recording student participation and learning progress in piano class. Before the formal observation, the researcher formulated the systematic observation content, including the indicators of students' learning behavior in the classroom piano, such as "students' active questioning in class," "motivation to play in class," "interaction with the teacher," and "whether they understand the class content". These indicators are based on the relevant literature review, combined with our own experience, and discussed with experts. These indicators are based on relevant literature reviews, the researcher's own experience, and the results of expert discussions. To enhance observational reliability and validity, the researcher will continue to use the same observation criteria in multiple teaching units and make classroom observation records to ensure consistency and completeness of the structured observation. At the end of the semester, the researcher conducted 4 rounds of semi-structured interviews with the student participants. At the time, the researcher also conducted 2 focused interviews with the panel of experts to gather their professional opinions on the effectiveness of the teaching strategies.

All interviews were audio recorded and subsequently transcribed into text using transcription software. The transcripts were later reviewed and manually checked to ensure accuracy.

Data Analysis

Through interviews and observation records, this study explored crucial factors affecting students' piano learning in the traditional teaching model. The interviews and observations were systematically organized and analyzed to extract the main themes related to the teaching model and student learning. The interview and observation data were gathered using MAXQDA for consistent management and analysis. During the analysis, the researcher conducted an in-depth reading of the textual content through open coding, identifying several main themes related to the learning environment, emotional engagement in learning, learning readiness and class format.

To improve the reliability and validity of the study results, this study used triangulation, which included cross-referencing the interview transcripts with classroom observation data to verify the consistency of the data, the theoretical references provided by the documentary research to support the theoretical basis of the analyzed results, and the confirmation of the accuracy and reasonableness of the research topic and he analyzed results through participant feedback. Triangulation effectively avoids the bias of a single data source and provides a more comprehensive and multidimensional support for the findings (Santos et al., 2020).

FINDINGS

Through classroom observations and in-depth interviews, the researchers identified several key factors that influence students' piano learning. The following sample of six vignettes illustrate how these factors can have a real impact.

Each vignette is not an individual case but is selected from many interviews and observation journals after repeated comparisons and careful selection, aiming to vividly present the most typical and situational sense of student experience under the research theme, with a common pattern of the specific embodiment of the problem.

Vignette 1: Learning Environment — Optimization of Learning Facilities

Teacher: How do you think the existing electronic piano equipment affects your piano learning?

P3:	Hmm... The electronic piano at school is a bit old-fashioned, hindering my piano learning.
Teacher:	Can you elaborate?
P3:	Okay, here are a few electronic pianos in the classroom that have poor power contacts, and there are a few that have certain buttons that are broken, and if any of the students are assigned to those, then the lesson is pretty much a waste of time. Shadow, brightness in your music timbre. Do you know what I mean?
Teacher:	Is there any way to remedy this situation? I mean, does this situation affect your piano learning a lot?
P3:	Yes, because the electronic pianos in the classroom and the practice room have some problems and have not been repaired for a long time. Many students have reported this problem, and if the electronic pianos in the classroom don't work properly, we are not very interested in practicing the piano in the practice room after class.
Teacher:	Is this one of the most critical factors that prevented you from learning piano?
P3:	I think so because I didn't have a piano at home, so I had to practice at school, which was important.

Vignette 2: Emotional Engagement — Technique and Expression Training

At the beginning of the class, the teacher emphasized the importance of a positive learning atmosphere and mutual encouragement. The first student began by playing a piece of music, making minor mistakes but playing calmly. The teacher gave the students positive feedback and suggestions for improvement, guided the other students to point out the strengths of the performance, and then encouraged the students to play again. The students' second performance was smoother and more expressive, winning the applause of their classmates. At the end of the class, the teacher guided all the students to discuss strategies to practice complex phrases and encouraged them to look for learning methods that suited them actively. During this process, the teacher encouraged everyone to speak and gave special recognition to the speech of a usually quiet student, which also led to an unexpected diversity of feedback and a pleasant atmosphere in the classroom.

Vignette 3: Academic Readiness — Piano Learning Experience

Teacher:	Did you receive formal piano playing or music basics before entering College L?
P4:	(THINK) I don't think so because when I went to school, the school offered music lessons, but other classes often took them up, and my family could not let me learn the piano. Only after I entered L College was I first introduced to the piano.
Teacher:	And how did you feel during the basic piano lessons at the beginning?
P4:	It was very overwhelming; I couldn't understand much of what was taught in class because there was no foundation. For example, the teacher talked about techniques for finger exercises, and I had no idea what I was supposed to do. And none of the other students seem to be doing very well either, or everyone is anxious.
Teacher:	Do you mean all the other students face the same situation?
P4:	Yes, we talk to each other privately, and at the very beginning, we don't know what the teacher talking about, so we can only practice more in the next class.
Teacher:	Do you take some pre-study or practice to help you learn?
P4:	We will try to practice in advance, but because I don't have the basics, I practice messily, and I don't even know where to start.

Vignette 4: Class Format —Student Learning Experience

| Teacher: | In the basic piano course, you participated in group and small group classes. Can you share your feelings about these two teaching styles? |
| P1: | The group class has many students, and I find it difficult for the teacher to |

	attend to each student's problems. Sometimes, I feel ignored in class, especially when I don't quite understand a specific performance technique.
Teacher:	So, how was the small group class experience?
P1:	The small group class made me feel more focused. Because there were fewer students, the teacher could guide us one-on-one and adjust the teaching content according to our progress. I also discussed with other students in group lessons, so I learned more efficiently.
Teacher:	So, do you think small group class has shortcomings?
P1:	Yes, although I like small group classes very much, because of the limited classrooms and piano equipment, sometimes our classes are arranged more compactly, and it is not good to organize them. Then again, there are too many students, so if all of them are assigned to small group lessons, the same content may take longer.
Teacher:	Does combining group classes and small group classes make more sense?
P1:	Yes, small group classes make up for the lack of group classes. I can get a quick overview of the overall learning objectives in a group class, but a small group class is more likely to give me a deeper understanding of what I am learning. If the frequency of small group classes could increase, the learning would be better.
Teacher:	And what do you suggest for small group classes?
P1:	I would like more small group classes, at least once or twice a week learning would be better.

DISCUSSION

Impact of Learning Environment Optimization on Student Piano Performance

The above Vignette demonstrates the impact of the learning environment on piano learning concerning the synergistic effects of teaching resources, physical space, and psychological environment. Through observation and interviews, the researcher found that the learning environment affects students' learning efficiency and impacts their psychological state and academic engagement positively. Multimedia tools help students understand abstract music theory intuitively by reducing learners' cognitive load through visual and auditory presentation of information. At the same time, researchers believe that students in classrooms using multimedia show livelier interactivity and more positive feedback on the content, which also suggests that multimedia resources have a stimulating effect on learning (Johnson & Priest, 2014).

The quality of the equipment in the learning environment directly impacts the quality of students' piano practice and motivation; outdated or malfunctioning electronic piano equipment not only reduces the effectiveness of classroom instruction but also discourages students from practicing. As an important part of the learning system, the external environment must provide appropriate resource support and learning conditions (Tàbara & Pahl-Wostl, 2007). The quality of the environment is a key external motivator of learning behavior and performance. Optimizing equipment quality and maintaining the practice space's suitability can significantly enhance students' motivation and practice focus (Edgerton & McKechnie, 2023). Additionally, noisy and dirty environments can increase students' anxiety and frustration, diminishing motivation and performance (Swargiary, 2023).

Emotional Engagement as a Key Factor in Academic Performance

The researcher found that emotional engagement impacts students' academic performance significantly, such as pleasure, pride, and self-confidence, increasing motivation and performance (Pietarinen et al., 2014). For example, in this piano class, students who were encouraged by the teacher and received positive feedback from their peers were more fluent the second time they played, demonstrating how positive affective experiences can contribute to learning outcomes. Sagayadevan and Jeyaraj (2012) noted that affective engagement can help enhance academic focus and achievement. In the classroom discussion, when the teacher encourages students to put forward their briefs, some students can put forward more complex ideas, which also shows that in a positive atmosphere, students can show higher

critical thinking and problem-solving skills, which can effectively help students to understand knowledge (Xu et al., 2023). Additionally, the researcher found that students' academic performance in the "failing" stage improved significantly after being encouraged by teachers. This suggests that positive emotional engagement by teachers can create a virtuous circle in the classroom, helping students perform better in academic activities (Sadoughi & Hejazi, 2021).

Practically, teachers enhance students' emotional engagement by providing positive feedback, positively impacting their academic performance. For example, researchers have found that students who replace the words "You are wrong here" with "This is better" in the classroom tend to perform better and, in some cases, interact more frequently with the teacher. It has been suggested that teachers who provide specific and targeted positive feedback help students clarify their learning goals and increase their self-efficacy, promoting academic performance (Sadoughi & Hejazi, 2021). Therefore, in this study, the researcher paid more attention to the students' learning emotions in the second semester of teaching and paid more attention to the attitude of communicating with the students, and achieved positive teaching results, students were more willing to communicate with the teacher, and had a more positive attitude towards learning, and were more willing to face the challenging piano learning content.

Plus, teachers consciously communicate positive feedback, which leads to a more integrated classroom climate, and this integrated climate contributes to a supportive classroom environment. In such a classroom environment, students can express their views freely without fear of being criticized or ridiculed, and a secure learning environment is more likely to stimulate creative thinking (Reyes et al., 2012).

Because of the teacher's continuous positive feedback, students' concentration in the classroom increases (Monteiro et al., 2021). Especially when teaching more complex music, if the teacher strategically maintains positive student-teacher interactions, students' ability to cope with academic challenges increases, characterized by reduced intimidation and more enthusiastic responses to questions or performances in the classroom (Yang et al., 2021). Therefore, to enhance students' affective engagement, teachers should focus on positive feedback's variety, relevance, and continuity to help students build confidence in piano learning.

The Lack of Piano Learning Readiness is Common Among Vocational College Students

Learning readiness refers to students' knowledge, skills, attitudes, and motivation before formal learning. This concept emphasizes students' need to be well-prepared before entering a new stage of learning (Erol et al., 2023). In this study, the researcher realized that students in higher education institutions need to be more prepared for professional piano study. In Northwest China, where College L is located, music education is not carried out commonly enough due to economic influences, and students' family environments are generally less supportive of piano learning (Cheng et al., 2024), resulting in these children having little or no foundation in piano playing or weak basic music knowledge before enrolling in school. Before starting formal basic piano lessons, most students worry beforehand that they will not perform well. Even after enrolment, most students reported that they could not find an effective way to learn, resulting in significant stress and discomfort in their piano learning process. In the interview transcripts, many students reported that they could not understand or keep up with the teacher in class, which was often the case.

In addition to this result, the researcher noticed that HEIs have also failed to fully consider students' starting points in learning in piano curriculum design, which further exacerbates learners' anxiety and maladjustment (Ma & Heng, 2024). In response to this situation, Quaglia (2015) suggests that differentiated instructional design and Universal Design for Learning (UDL) may be an important way to address student learning differences. Teachers can help students overcome cognitive barriers and gradually adapt to course content by providing flexible lesson planning and diverse instructional approaches. This reminds educators of the need to provide basic learning resources and targeted support per students' different starting points, such as slowing down the pace of teaching, adding introductory lectures, or providing supplementary exercises outside the classroom, as mentioned by students in interviews.

The Combination of Group Lessons and Small Group Lessons Maybe More Suitable for Piano Teaching in Higher Vocational Education

In Chinese higher vocational piano teaching, normal and small groups and individual classes are the three main teaching methods (Wu et al., 2024). In fact, at L Higher Vocational College, the piano teaching methods are mainly normal and small group classes. By analyzing the interviews, the researcher concluded that the teaching method of using group classes as the primary teaching method, supplemented by small group classes, is the teaching method that meets the current teaching resources best. There are limited rooms and teaching equipment, and group classes can simultaneously accommodate as many students as possible, thus maximizing the use of teaching facilities. Group classes are also convenient for teachers to standardize teaching progress, achieve teaching objectives, and manage and evaluate the learning of large numbers of students (Wang et al., 2025). The disadvantages of teaching in group classes are also evident because, in practice, the large number of students makes it difficult for teachers to provide targeted education and feedback to each student. Many students feel neglected in the classroom and consequently become less enthusiastic about learning and experience a lack of concentration (Oliveira & Lathrop, 2022).

Peer competition in a classroom with many students also has the potential to demonstrate its detrimental effects, with some students feeling pressured to perform in a group setting, thus increasing learning anxiety (Posselt & Lipson, 2016). Small group classes can compensate for the shortcomings of teaching piano in group classes. In this study, the researcher observed more frequent teacher-student interactions in small group classes, and teachers had more time and energy to individualize their teaching to the progress and needs of each student. Additionally, students reported that smaller numbers also reduced performance anxiety, they were more relaxed when playing in class, and they were more creative with what they were learning in terms of improvisational accompaniment (Edmund & Keller, 2020). However, small group classes require more classrooms and pianos, and teachers also need to coordinate the progress of different groups promptly, which adds to the complexity of instructional management. In the second semester of the study, the researcher increased the number of small group classes from six in the first semester to eleven in the second semester, and interviews showed that students were positive about this change.

Lack of Provision of Career Development and Employment Services in Vocational Institutions

The importance of career development in higher vocational education is unquestionable, and higher vocational education should help effectively enhance students' employability and career success (Kumar, 2008). However, research has shown that Chinese higher vocational education institutions have significant deficiencies in providing career planning services to non-graduating year students, and this deficiency is also reflected in the teaching and learning implementation of basic piano lessons. The lack of necessary career information not only reduces the timeliness of students' access to industry information but also hinders their ability to plan early for future careers due to the lack of necessary career skills (Wessel et al., 2015), and this anxiety about career development has a direct impact on students' learning outcomes. In this study, there was an imbalance between the content of the basic piano course and the student's vocational skills needs, and the more complex children's piano accompaniment required students to migrate well. Through the researcher's observations and interviews, the students' anxiety persisted throughout the piano learning process, which needed to be improved by the teachers' inclusion of necessary information about careers in the teaching implementation. This kind of teaching aid may not be related to the content of piano teaching itself, but it profoundly impacts students' piano learning.

To further improve this situation, in addition to incorporating relevant information into the teaching and learning process, HEIs should also increase the number of career development workshops and counseling services for all students to address the current lack of depth and breadth of services (Choi et al., 2015). Some research suggests that enhanced HEI-business collaboration can help students better integrate classroom learning with real-world work demands, especially as preschool students need more internships to enhance career readiness (Franco-Ángel et al., 2023).

CONCLUSION

Based on a case study of a basic piano class in L Higher Vocational College, this study reveals four key factors affecting student's piano learning through interviews and real-time observations. The findings stress the significance of optimizing the learning environment and emotional engagement, addressing students' lack of learning readiness, and adopting teaching methods that combine normal and small group classes. These findings suggest that although the traditional "transmission-adoption" model is still effective in teaching fundamental knowledge, it needs to be adapted to meet the diverse nature of vocational music education in China and the specific learning needs of students.

This study offers valuable implications for future research and practice in vocational piano education. Firstly, the applicability of the proposed optimization strategies could be validated across other vocational institutions and disciplinary contexts to evaluate their generalizability and flexibility. Secondly, extending the longitudinal span of related studies is recommended in exploring the long-term effects of such strategies on students' piano performance and career development. Moreover, the integration of high-tech tools—such as multimedia instruction, digital platforms, and virtual reality—presents a promising direction for enhancing student engagement and interactive skill acquisition in piano education. Finally, known distinctions in teaching methods and student outcomes between vocational and professional conservatories should be leveraged to inform more targeted and adaptive strategies for higher music education.

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