

Research on the Application Strategies of Blended Learning Models in Piano Group Classes at Higher Education Institutions under the OBE Philosophy

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Abstract: *With the continuous development of higher education teaching reform and the promotion of teacher certification in teacher education programs, the OBE (Outcome-Based Education) philosophy has gained widespread attention in the field of education. In this context, university educators are continually exploring new teaching models to meet the personalized and diverse learning needs of students. Blended learning, as a novel teaching approach that integrates online and offline instruction, has brought about new possibilities for higher education. This study takes piano group classes as an example, integrating the OBE outcome-oriented philosophy throughout, and analyzes the reconstruction of teaching objectives from three aspects: knowledge, skills, and qualities. Through the practical application of blended learning on the BlueMooc platform, the study proposes application strategies that combine flipped classroom teaching methods and the judicious use of blended learning. The aim is to explore how to apply the blended learning model to university piano group classes under the OBE philosophy, effectively enhance students' musical literacy and keyboard skills, and meet the needs of society and employers.*

Keywords: *OBE philosophy; university piano group classes; blended learning model*

1. Introduction

"Piano" is a core course in general higher education music programs, encompassing theoretical, technical, and applied aspects, with practicality being a major attribute of piano courses. In terms of curriculum design, universities typically offer piano group classes over a two-year period, targeting students from various music majors with varying levels of proficiency. Traditional piano group class instruction is conducted in a face-to-face format, with limited class hours that often fail to meet students' personalized and diversified needs, resulting in less than ideal teaching outcomes. Graduates commonly report inadequate keyboard application skills and deficiencies in piano foundational teaching abilities, which do not fully meet the requirements of employment. Therefore, starting from the OBE outcome-oriented philosophy, it is imperative to consider the imminent need for pedagogical reform in university piano courses.

2. Overview of the OBE Concept

2.1 Definition

OBE, an abbreviation for "Outcome-Based Education," is an educational philosophy centered around student learning outcomes. It emphasizes students' practical abilities and the application of knowledge rather than solely focusing on the content and process of knowledge transmission. At the core of the OBE philosophy is the shift of the learning emphasis from teachers to students, making students the protagonists of learning and emphasizing the cultivation of their core competencies and practical skills.

2.2 Key Elements

2.2.1 Clear Definition of Learning Outcomes

Learning outcomes refer to the knowledge, skills, and abilities that students should acquire in specific fields or disciplines. These learning outcomes need to be described in a specific and clear

manner, ensuring that both students and teachers can understand and pursue them effectively. In the OBE philosophy, learning outcomes are the heart of education.^[1] Learning outcomes should be relevant to practical applications and align with the standards and requirements of the respective disciplines. Students are expected to achieve these learning outcomes during the learning process, while teachers play a guiding and supportive role in helping students reach these outcomes.

2.2.2 Design of Instructional Plans

Based on learning outcomes, teachers design instructional plans, specifying instructional objectives, content, and activities.^[2] Instructional plans need to be developed in accordance with the learning outcomes, ensuring that students gradually attain these outcomes during the learning process. Instructional activities should be closely related to the learning outcomes, focusing on cultivating students' practical abilities, problem-solving skills, and critical thinking abilities.^[3]

2.2.3 Student Assessment

Student learning outcomes are determined through assessment and measurement. Assessment methods may include examinations, assignments, projects, practical activities, among other forms, with the aim of evaluating whether students have achieved the expected learning outcomes.^[4] The assessment process should correspond to the description of the learning outcomes, demonstrating reliability and effectiveness in objectively reflecting students' learning progress and actual abilities.

2.2.4 Feedback and Adjustments

Assessment results provide feedback information for both teachers and students. Teachers can adjust their teaching strategies and instructional plans based on assessment results, further optimizing and improving the teaching process. Students can also receive feedback based on assessment results, understanding their strengths and areas for improvement in achieving learning outcomes. Consequently, students can adjust their learning strategies and directions.^[5]

2.2.5 Continuous Improvement

OBE underscores the continuous improvement and reflection in education. Teachers and educational institutions should continuously reflect and adjust teaching strategies, curriculum designs, and assessment methods based on student assessment results and feedback information to enhance students' learning outcomes and overall educational quality.

3. Reconstructing Teaching Objectives for Piano Group Classes in Higher Education Using the OBE Philosophy

The teaching objectives for piano group classes in higher education should first align with the goals of talent development in music majors. In accordance with the Outcome-Based Education (OBE) philosophy, teaching objectives should not solely focus on knowledge dissemination and musical skill training. Instead, they should incorporate effective teaching assessment and feedback from graduates, following a backward design approach that aligns with graduation requirements. Taking Jinzhong University's Music Department as an example, the talent development goals for music majors primarily emphasize ethics, abilities, comprehensive education, and independent development. This includes nurturing innovative talents who are rooted in Jinzhong, serving Shanxi, and fostering comprehensive development in morality, intelligence, physical fitness, aesthetics, and labor. Moreover, it aims to cultivate core teachers capable of teaching music courses, class management, teaching research, and other educational activities in middle schools and related educational institutions. Therefore, the teaching objectives for piano group classes can be reconstructed in three aspects: knowledge objectives, skill objectives, and quality objectives:

3.1 Knowledge Objectives

Through two years of piano group classes, students should master scientific piano playing methods and common piano performance techniques. Study Chinese piano compositions and representative piano works from different eras, styles, countries, and ethnicities to understand their stylistic characteristics.

Become familiar with piano introductory teaching methods and the content and characteristics of common introductory piano materials.

Mastery of scientific piano playing methods and common piano performance techniques is the primary task of piano group class instruction. It is an essential prerequisite for students to reach an intermediate level of performance and a vital means for students to acquire primary piano teaching and keyboard application skills. Since piano group classes usually span only four semesters, students' repertoire is limited. Therefore, selecting piano pieces becomes a critical task for piano teachers. Given the context of promoting Chinese traditional culture, it is recommended that piano teachers prioritize Chinese piano compositions, integrating moral and political education into piano instruction, aiming for character development through music and piano.

3.2 Ability objective: to achieve the medium level of piano performance, with keyboard application ability and primary piano teaching ability.

Through random surveys of graduate employers, two common issues among piano group class students have been identified. Firstly, students need to enhance their ability to independently perform piano pieces at an intermediate level. Secondly, students lack proficiency in piano accompaniment. Following the OBE outcome-oriented philosophy, piano group class instruction should place students at the center, emphasizing practical abilities, self-learning, and innovation. The hybrid teaching model, which includes one-on-one guidance and personalized tutoring both online and offline, helps students learn the correct keying methods and playing techniques. By utilizing the diverse teaching resources available online, students can experience personalized learning, not only mastering intermediate solo pieces but also improving their self-learning and piano accompaniment, and improvisation skills. This comprehensive keyboard application ability allows students to be more versatile in music performance.

3.3 Quality goal: to cultivate students' persistent interest in piano playing, cultivate their sentiment, promote physical and mental harmony and all-round development.

The hybrid teaching model for piano group classes in higher education aims to cultivate students' enduring interest in piano performance through diverse music education. Firstly, the curriculum encompasses Chinese piano compositions, representative piano solo pieces from various countries, eras, styles, and genres, accompaniment for primary and secondary school textbook songs, and early piano ensemble pieces. This rich curriculum widens students' musical horizons, enhances their understanding and appreciation of various types of piano pieces, and fosters a lasting interest in piano performance, eliminating any aversion to challenging and profound performance techniques.

Secondly, the group class format provides students with numerous opportunities to showcase their talents, thereby enhancing their confidence and stage performance abilities. Additionally, piano ensemble and accompaniment studies improve students' collaborative skills.

The hybrid teaching model for piano group classes in higher education focuses on nurturing both music skills and overall quality. Through diverse teaching content and varied teaching methods, students gain rich musical experiences. Using piano performance as an expressive medium, students resonate with music and express their emotions, thus nurturing emotional intelligence and emotional expression skills. Exposure to piano compositions elevates students' moral and artistic qualities, sublimating their emotions, fostering a sense of value, and internalizing these values. Consequently, they become socially well-rounded individuals with thoughts, emotions, and virtues.

4. Application Strategies for the Hybrid Teaching Model of Piano Group Classes in Higher Education Based on the OBE Philosophy

4.1 Incorporating Flipped Classroom Pedagogy

Flipped classroom pedagogy offers asynchronous, time- and space-independent learning opportunities. This educational reform fundamentally transforms the traditional piano group class teaching model, enabling personalized and self-directed learning. Prior to class, students engage in self-paced learning by watching instructional videos and performance demonstrations on online teaching platforms such as the LanMoo Cloud Classroom and SuperStar platform. They identify challenges and bring questions to the offline classroom, making the offline group class more targeted. In this approach, teachers transition from knowledge transmitters to learning facilitators, catering more effectively to students' individualized learning needs, resulting in significant improvements in learning outcomes.

4.2 Strategic Utilization of the Hybrid Teaching Model

Piano group classes in higher education can effectively utilize online platforms like MOOCs, Rain Classroom, and SuperStar, either by leveraging existing online teaching resources or developing custom online courses. Careful planning of learning tasks is essential to foster innovation and improvement in teaching. However, over-reliance on independent online learning should be avoided to ensure that in-person instruction remains the primary mode for addressing complex and challenging aspects of the curriculum. Online teaching should primarily aim to enhance the efficiency of offline learning and expand the scope of learning content.

When teachers develop online courses, they can establish learning requirements, teaching progress, and examination schedules based on the syllabus. They can also add various teaching materials, such as instructional videos, performance demonstrations, electronic scores, and additional educational resources for each class. Additionally, teachers can create diverse online teaching activities, including tests, discussions, assignments, and assessments, aligning with the content of the course. Moreover, teachers can use the platform to send notifications, update resources, and provide answers and clarifications, facilitating dynamic course management.

Offline classroom instruction should focus on addressing students' difficulties and challenges. Teachers can offer targeted explanations and guidance based on students' questions and video submissions on the online platform. This approach ensures that classroom sessions are more interactive and in-depth, ultimately benefiting student learning.

4.3 Enhancing Assessment Methods

Traditional piano group classes typically assess students through midterm and final performances, with grades being determined as 30% from midterm exams and 70% from final exams. This singular evaluation method fails to provide effective and timely feedback on student and teaching processes. Consequently, students can secure good grades by excelling in midterm and final exams, disregarding the learning process and teaching aspects. Guided by the OBE philosophy, a comprehensive evaluation approach should be adopted, combining formative, summative, and ongoing assessments, providing an objective evaluation of both student learning and the effectiveness of the hybrid teaching model.

4.3.1 Formative Assessment of Student Learning in Piano Instruction

Formative assessment primarily occurs within the students' learning journey, serving as a progressive reflection of the value derived from activities conducted during the learning process. Formative assessment encompasses various aspects, including students' engagement in instructional activities during each class, completion of assignments, the implementation of the teacher's instructional plan, and feedback on students' learning experiences. Leveraging the data management capabilities of online teaching platforms allows for the intuitive visualization of formative assessment. In the context of piano group classes, formative assessment primarily revolves around flipped learning through online instructional videos, participation in discussions, and assignment completion. The weighting for formative assessment components is as follows: video-based learning (20%) + non-video-based learning (5%) + attendance (10%) + quizzes (10%) + discussions (15%) + assignments/group tasks (25%) + in-class performance (10%) + bonus points for teacher recognition (5%).

Upon the completion of the course, the backend system automatically generates students' learning reports and continuous assessment scores based on the specified weightings.

4.3.2 Formative Assessment in Piano Group Class Instruction

The backend data analysis of online platforms leaves a trace. For example, the BlueMoo Cloud Classroom backend provides weekly teaching reports for classes, enabling instructors to assess the implementation of their teaching plans in a formative manner, achieving timely feedback and continuous improvement. The bar chart in Figure 1 displays the frequencies of newly added resources, activities, and members during the teaching process, while the line chart illustrates the total number of resources, activities, and members for each week. From the charts, it is evident that in the first half of the semester, the frequency of new teaching resources and activities was relatively high and well-balanced. However, in the second half of the semester, the rate of new teaching activities significantly decreased, with an irregular frequency that oscillated between high and low points. Additionally, there was minimal growth in teaching resources. This indicates that in the latter half of

the semester, instructors did not sufficiently utilize online teaching platforms for instructional purposes. In future teaching plans, attention should be given to balancing the frequency and proportion of newly added teaching resources and activities. As shown in Figure 1.

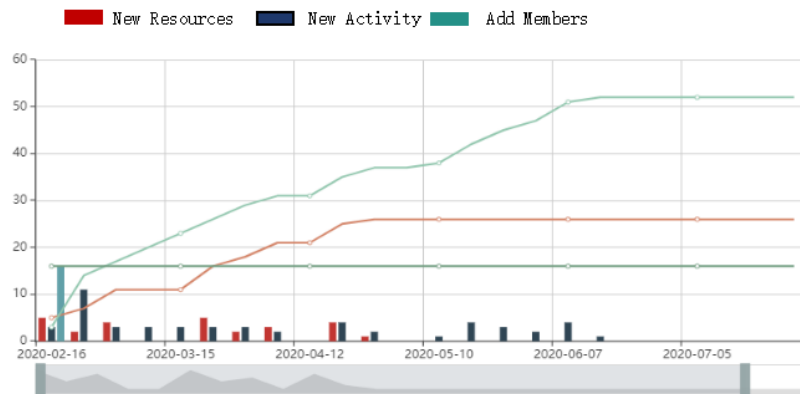


Figure 1: Blue ink cloud class platform teaching weekly report

4.3.3 Periodic and Final Assessment

Periodic assessment refers to the mid-term examination held in the ninth week of the course. The exam typically covers fundamental exercises in scales and arpeggios, as well as skill-building exercises. Final assessment, on the other hand, pertains to the end-of-semester piano final exam, which focuses on piano compositions and requires memorization. For both periodic and final assessments, specific and detailed grading criteria should be established in accordance with the teaching objectives and corresponding graduation indicators.

4.3.4 Incorporating Self-Assessment, Peer Assessment, and Teacher Evaluation

In the section where teachers submit assignments on the online platform, various evaluation methods such as self-assessment, peer assessment, and teacher evaluation can be implemented based on the difficulty level of the musical pieces. Encouraging students to provide objective assessments of their own and their peers' performance videos from both the perspective of a teacher and a fellow student can help them identify issues and stimulate critical thinking. Through peer assessment, competitiveness among students can be enhanced, effectively improving the quality of assignment submissions.

Teachers should make full use of the data management capabilities of the online teaching platform and employ diverse evaluation methods to comprehensively and multidimensionally assess students' learning progress and teachers' instructional effectiveness. This approach aims to comprehensively examine students' musical expressiveness, performance skills, and music theory knowledge, enabling a more accurate understanding of students' learning situations and progress, thereby providing robust insights for instructional enhancements.

4.4 Optimizing Teaching Content and Emphasizing Personalized Development

Traditional piano group class teaching content typically includes fundamental exercises, etudes, counterpoint, sonatas, famous compositions, etc., often overlooking essential piano pedagogy and the cultivation of keyboard application skills. Therefore, teachers can first incorporate rich teaching content such as piano pedagogy, piano pedagogical materials, piano ensemble, and playing and singing elementary school music, tailored to meet students' personalized and diversified needs, based on the specific teaching context. Furthermore, different levels of teaching content and tasks can be introduced to cater to students' varying proficiency levels and interests. This approach ensures that each student can develop within a framework that suits their individual needs, avoiding limitations imposed by overly standardized teaching methods.

4.5 Providing Lifelong Learning Support and Promoting Professional Development

The establishment of an online piano course platform can offer lifelong learning support to students, promoting their professional development. Additionally, a learning resource repository can be created, containing music materials, scholarly papers, performance recordings, and more, which students can

access and study at any time. Furthermore, the institution can regularly organize special lectures, seminars, and workshops, inviting professionals and scholars from the music industry to share their experiences and research findings. Such activities provide students with opportunities for face-to-face interactions with experts in the field, broadening their academic perspectives and deepening their understanding of the music domain.

5. Conclusion

By integrating the OBE (Outcome-Based Education) philosophy into piano group class instruction, this research has proposed a reconstruction of teaching objectives from the perspectives of knowledge objectives, skill objectives, and quality objectives. Leveraging online teaching platforms to implement a blended learning approach can effectively address the shortcomings of traditional teaching methods. The abundant online teaching resources and diverse instructional content provide students with a broader learning space and richer learning experiences. This study aims to offer suggestions and insights for the teaching of piano group classes in higher education institutions.

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