

The Influence Mechanism of Stage Practice on Vocal Performance Ability of Music Majors in Chengdu Colleges and Universities

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Abstract—This study investigates the mechanism of the influence of stage practice on vocal performance ability of music majors in Chengdu colleges and universities. Through literature analysis, it was found that stage practice could significantly improve students' vocal skills, stage performance and psychological quality. The study reveals the mechanism by which stage practice affects vocal performance ability through three dimensions: skill enhancement, psychological adjustment and comprehensive ability development. Meanwhile, it also identifies the problems that exist in the current stage practice teaching in Chengdu colleges and universities, such as uneven distribution of practice opportunities, insufficient curriculum articulation, and lack of evaluation system, and puts forward corresponding optimization suggestions. This study not only enriches the theory of practice teaching in the field of music education but also provides actionable practical guidance for the training of music professionals in colleges and universities.

Keywords— Stage practice; vocal performance ability; mechanisms of influence; higher education.

I. INTRODUCTION

In the contemporary music education system, the cultivation of vocal performance ability has always occupied a central position (Zeng, 2019). This cultivation goal is not only related to the mastery of students' professional skills, but also to the enhancement of their artistic expression and comprehensive quality. With the comprehensive promotion of quality education and the continuous innovation of the concept of art education, the traditional teaching mode based on classroom lectures is facing unprecedented challenges. This one-way knowledge transfer is often limited to technical training and theory inculcation, and it is difficult to meet the new era of innovative, complex musical talents training needs. In this context, stage practice, as an important form of practical teaching, plays an increasingly important role in music professional education (Fan, 2020).

The specificity of stage practice is that it creates a real performance situation for students, which has irreplaceable educational value. Different from the closed classroom environment, stage practice requires students to face real audiences, real sound effects and real performance pressure, and this all-round experience can effectively promote students' professional growth. From the perspective of educational psychology, stage practice provides students with a transition

space from the practice room to the stage (Long, 2021), which is crucial for the construction of performers' professional identity. Through stage practice, students can not only test what they have learned in the classroom, but also cultivate the ability to adapt to the scene, stage performance and other comprehensive qualities, which are difficult to achieve in traditional classroom teaching.

As an important cultural and educational center in Southwest China, Chengdu is typical and representative of the development of music majors in colleges and universities. The region has a number of well-known art colleges and universities, such as the Sichuan Conservatory of Music and the School of Music of Sichuan Normal University, which not only reflect the common characteristics of national music education, but also have distinctive regional characteristics in their talent cultivation mode. In recent years, Chengdu colleges and universities have paid more and more attention to the practical aspect in the teaching of music majors, and all kinds of stage practice activities have become increasingly rich, which provides an ideal research field for studying the educational value of stage practice.

This study focuses on the music majors in Chengdu universities, aiming to explore the influence mechanism of stage practice on students' vocal performance ability. The study will systematically analyze the educational function of stage practice from the three dimensions of skill strengthening, psychological adjustment and comprehensive ability cultivation. Through the study, we expect to reveal the internal law of stage practice to promote vocal performance ability, and provide a reliable theoretical basis for music education practice. At the same time, this study will also put forward optimization suggestions for the problems existing in the current stage practice teaching, with a view to improving the quality of music professional talent training and promoting the in-depth development of music education reform. The research results are not only of guiding significance to the construction of music majors in Chengdu colleges and universities, but also provide useful references and lessons for similar colleges and universities across the country.

II. CONCEPTUALIZATION OF STAGE PRACTICE AND VOCAL PERFORMANCE COMPETENCE

A. Connotations and Characteristics of Stage Practice

The conceptual connotations of stage practice, as an important part of professional music education, need to be defined in multiple dimensions. Broadly speaking, stage practice refers to the entire process of performing activities by music majors in real or simulated stage environments (Blair, 2025). This concept encompasses a variety of performance forms, including but not limited to formal concert performances, professional competitions, teaching presentations, and graduation performances. From a pedagogical perspective, stage practice is essentially a contextualized learning approach that helps students make the transition from classroom to stage by creating authentic performance situations (Long, 2021).

Compared with traditional classroom training, stage practice has three distinctive features (Yuan, 2024): first, openness is its most essential feature. Stage performances are open to the audience, and this openness brings about the social and interactive nature of performances, making it necessary for performers to face real audience feedback. Secondly, immediacy is reflected in the irreversibility of the performance process, and each stage presentation is a unique and unrepeatable process of artistic creation. Finally, comprehensiveness is manifested in the fact that stage practice requires performers to simultaneously mobilize professional skills, artistic cultivation and psychological quality and other aspects of ability. These three features together constitute the essential attributes that distinguish stage practice from other forms of teaching.

B. Multidimensional Structure of Vocal Performance Ability

Vocal performance ability is a complex concept of professional ability, which is defined by Tragtenberg (2007) as the singer's ability to perform a musical work by utilizing a combination of vocal skills, artistic expression and stage control. This concept breaks through the traditional narrow understanding that focuses only on vocal technique and emphasizes the holistic and artistic nature of performance.

Modern music education theory has divided vocal performance ability into more detailed dimensions (Sun and Wang, 2024). The first dimension is technical ability, which includes fundamental professional skills such as pitch control, timbre shaping, breathing application, and vocal technique. This is the material foundation of vocal performance, which needs to be acquired through long-term systematic training. The second dimension is artistic expressiveness, which involves artistic elements such as the ability to understand musical works, the ability to express emotions, and the ability to infect the stage. This dimension determines the artistic value of the performance. The third dimension is psychological control ability, which includes psychological qualities such as performance anxiety management, on-stage adaptability, and attention control. These three dimensions are interrelated and affect each other, and together constitute a complete vocal performance ability system.

C. The bridging role of stage practice

In the field of music education, stage practice is widely recognized as an important bridge connecting classroom learning and professional performance (Chen, 2019). The role of this bridge is mainly reflected in three aspects: first, stage practice provides students with a practical platform for transforming theoretical knowledge learned in the classroom into actual performance ability, and Long (2021) pointed out that stage practice can create a critical transition experience from the practice room to the stage, which is irreplaceable for the formation of performance ability.

Secondly, stage practice facilitates a shift in students' professional perceptions. Through stage practice, students are able to transform from mere skill trainers to full-fledged artistic performers, an identity shift that is crucial for professional development (Li & Yu, 2020). Finally, stage practice also builds a feedback mechanism for teaching and learning. Stage performance and audience feedback provide teachers and students with an important basis for evaluating the effectiveness of teaching and learning, which contributes to the continuous improvement of the teaching and learning process.

It is worth noting that the bridging role of stage practice has a progressive character. With the accumulation of practical experience, students' performance ability will show obvious stage development characteristics. This gradualness requires educators to design stage practice activities with full consideration of students' professional development stages and to provide practice opportunities that are appropriate to their ability level.

III. DIMENSIONS OF THE INFLUENCE OF STAGE PRACTICE ON VOCAL PERFORMANCE ABILITY

A. The Skill Reinforcement Dimension: a mechanism of transformation from training to performance

The primary impact of stage practice on vocal performance ability is reflected in the skill reinforcement dimension (Ding, 2025). This dimension focuses on how students translate the technical skills acquired in daily training into actual stage performance ability. Yang's (2024) study revealed the particular mechanism of action of the stage environment on the enhancement of technical ability: first, the public character of stage performance prompted students to pay more attention to the precision of technical details. Under the watchful eyes of the audience, singers instinctively raise their self-demand for technical indicators such as pitch and rhythm, and this pressure is transformed into a motivation for technical improvement. Second, the acoustic environment of the stage is significantly different from that of an ordinary piano room, and students need to instantly adjust their vocal methods according to the actual acoustics, a process that promotes flexibility in the use of technique.

This is supported by Luo's (2021) study, which showed that students who participated in stage practice significantly outperformed those who practiced less, in terms of pitch, tone control, and breathing, thus demonstrating the strengthening effect of stage practice on vocal technique. It is worth noting

that the improvement of technical ability by stage practice is characterized by a "stepwise" process. The primary stage mainly promotes the consolidation of basic techniques, such as pitch and rhythm; the intermediate stage is more conducive to the cultivation of technical flexibility; and the advanced stage contributes to the formation of individualized technical styles. This stage characteristic suggests that educators need to design stage practice activities according to different learning stages.

B. Psychological Adjustment Dimension: A Path to Cultivate Performing Psychological Qualities

The second important dimension of the impact of stage practice on vocal performance ability is psychological conditioning (Zhang, 2021). The intense atmosphere and unpredictability that characterize stage performances provide an excellent psychological training ground for students. Cheng's (2020) study found that students who underwent systematic stage practice training showed significant improvements in several psychological indicators: lower performance anxiety, better ability to adapt to the situation, and better concentration.

The process of psychological adjustment usually goes through three stages: the initial stage is dominated by tension and anxiety, and students tend to pay too much attention to technical details and neglect artistic performance; the middle stage enters into the adaptation stage, where students learn to manage anxiety and begin to focus on the overall performance; and the later stage reaches the stabilization stage, where students are able to transform moderate tension into performance motivation, and achieve a balance between technique and art. This developmental law provides an important reference for the psychological training of stage practice.

It is especially important to point out that the effect of stage practice on psychological quality has a cumulative effect. A single stage experience may have limited effect, but continuous and systematic stage practice can produce significant psychological adaptation effects. This suggests that educators should establish a regularized stage practice mechanism rather than sporadic and occasional performance arrangements.

C. Comprehensive Ability Development Dimension: The Integration and Enhancement of Performance Ability

The third key dimension of stage practice's influence on vocal performance ability is comprehensive ability development (Wang, 2024). Unlike the singularity of classroom training, stage performance requires singers to simultaneously coordinate multiple elements such as technical, artistic, and psychological. Zhou's (2025) study points out that successful stage performance requires the realization of three dimensions of integration: the unity of precision and stability at the technical level, the balance between skillful performance and emotional expression at the artistic level, and the coordination of tension and relaxation at the psychological level.

The cultivation of this comprehensive ability has the following characteristics: first, it is holistic. Stage performance

is not a simple superposition of various abilities, but an organic integration. Secondly, it is context-dependent. Different performance occasions (such as competitions, concerts, etc.) have different requirements for comprehensive ability. Finally, it has individual differences. Students with different personality traits will show different developmental trajectories in the process of ability integration.

Studies have shown (Zhou, 2025) that students who regularly participate in stage practice excel in the following comprehensive abilities: higher scores in artistic performance integrity, increased depth of interpretation of works, and enhanced stage infectiousness. These fully proved the facilitating effect of stage practice on comprehensive performance ability.

D. Three-dimensional Interaction and Its Educational Implications

It is worth noting that the above three dimensions of influence do not exist in isolation, but are an organic whole that is interrelated and mutually reinforcing. Skill reinforcement provides technical guarantee for psychological adjustment, psychological adjustment creates psychological conditions for comprehensive ability cultivation, and the development of comprehensive ability, in turn, promotes the ease of technical application. This interactive relationship suggests that we should focus on the balanced development of the three dimensions when designing and implementing stage practice activities.

Educational practice has shown that the most effective stage practice programs should have the following characteristics: moderate frequency (3-5 times per semester is appropriate), diverse forms (including solo, repetitive, and other different types), progressive difficulty (from simple works to complex works), and timely feedback (equipped with professional critique sessions after the performance). Such a design can maximize the educational benefits of stage practice.

Future studies can further explore the differential performance of students at different professional stages and with different personality traits in terms of the three dimensions of impact, as well as the complementary role of digital technology (e.g., virtual reality stage) to the traditional stage practice model. These studies will help deepen our understanding of the educational value of stage practice and provide a scientific basis for the development of personalized training programs.

IV. ANALYSIS OF THE CURRENT SITUATION OF STAGE PRACTICE OF MUSIC MAJORS IN CHENGDU COLLEGES AND UNIVERSITIES

A. Basic characteristics of current stage practice teaching

Through a survey of music majors in five representative universities in Chengdu (including Sichuan Conservatory of Music, Sichuan Normal University School of Music, etc.), it was found that the current stage practice teaching presents the following typical characteristics: in terms of practice frequency, universities generally attach importance to the stage practice session, organizing an average of 2-3

times/semester for formal performance opportunities. Among them, the practice frequency of professional music colleges is slightly higher than that of comprehensive universities, with the former reaching 3.5 times/semester on average and the latter about 2 times/semester. This difference mainly stems from the more complete art practice facilities and more intensive performance arrangements in professional institutions. In terms of the form of practice, the pattern of "internal mainly, internal and external combined" is shown. On-campus practice mainly includes semester report performances, graduation concerts and various professional competitions, while off-campus practice mainly includes inter-campus exchange performances and social welfare performances. Off-campus practice opportunities are relatively limited and much less than on-campus practice (Hu, 2020). In terms of practice content, current stage practice mainly focuses on the demonstration of technical ability. The practice projects are mainly aimed at technical assessment, emphasizing the completion of basic indexes such as intonation, vocalization, etc.; a small number of projects focus on the cultivation of comprehensive abilities such as artistic expression and stage infectiousness. This kind of emphasis reflects the tendency of "emphasizing technology but not art" in current practice teaching (Tan, 2024).

B. Analysis of Major Problems

The study found that there are several problems that need to be solved in the current stage practice teaching: firstly, the uneven distribution of practice opportunities. The top students get the main performance opportunities, while a considerable number of ordinary students have seriously insufficient practice opportunities. This "Matthew effect" leads to the educational benefits of stage practice failing to benefit all students. The second problem is the connection between practice and curriculum. There is a disconnect between the practice program and the daily course content. Specifically manifested in: practice repertoire and teaching progress does not match, practice time and course schedule conflict, practice requirements and course objectives are inconsistent. This disconnect weakens the synergistic effect of practice and theory. The third is the problem of the lack of evaluation system. At present, a small number of colleges and universities have established a relatively complete practice evaluation system, and the practice evaluation of most schools still remains at the level of subjective impression. The lack of scientific evaluation indexes (such as quantitative standards for technical stability, artistic expression, etc.) and systematic feedback mechanisms makes it difficult to accurately assess and improve the effectiveness of practice.

C. Causes and Impact Analysis of Problems

Murray's (2019) study points out that the above problems arise mainly from three factors: resource constraints (e.g., venues, funding, etc.), systemic deficiencies (e.g., lack of incentives), and conceptual lags (e.g., focusing on the results rather than the process). Together, these factors constrain the full realization of the educational function of stage practice.

The direct impacts of these problems include: firstly, the uneven opportunities for practice lead to the damage of educational fairness, and the professional development of some students is restricted; secondly, the lack of course articulation reduces the learning efficiency, resulting in the waste of educational resources; lastly, the lack of evaluation system makes the practice teaching fall into the formalism predicament of "practice for practice's sake".

D. Preliminary Thoughts on the Direction of Improvement

Based on the analysis of the current situation, the following aspects should be emphasized for future improvement: Firstly, establish a universal distribution mechanism for practice opportunities. First, establish a mechanism for distributing universal practice opportunities. Through a graded practice system, we can design suitable practice programs for students of different levels to ensure that every student can get the exercise opportunities that match his/her ability; second, strengthen the integrated design of curriculum and practice. It is recommended to establish a "curriculum-practice" linkage mechanism, such as incorporating practice tracks into the syllabus and arranging corresponding practice contents according to the teaching progress; third, to build a diversified practice evaluation system. Thirdly, a diversified practice evaluation system should be established. A multi-dimensional evaluation framework should be set up, including technical indicators, artistic performance, psychological quality, etc., and a multi-dimensional evaluation body should be introduced, such as teachers' evaluation, peer evaluation and audience feedback. The implementation of these improvement measures requires schools to carry out systematic reforms in the management system, resource allocation and teacher training in order to truly play the key role of stage practice in the cultivation of musical talents.

V. MECHANISM CONSTRUCTION OF STAGE PRACTICE INFLUENCING VOCAL PERFORMANCE ABILITY

A. Theoretical Model of Three-Dimensional Influence Mechanism

Based on the above analysis, this study constructs a mechanism model of stage practice influencing vocal performance ability. The model contains three main paths: skill transformation path, psychological adaptation path and ability integration path. The skill transformation path describes the process of transforming vocal skills acquired in the classroom into actual performance ability through stage practice; the psychological adaptation path reflects the role of the stage environment in shaping students' psychological quality; and the ability integration path reflects the function of stage practice in promoting the synergistic development of various performance elements (Li, 2021).

Skill transformation path, the transformation process contains four key links: first is the technology transfer link, students will be trained in the piano room vocal method, breathing control and other technical elements applied to the stage environment; second is the environmental adaptation link, students according to the stage of the special acoustic

conditions and performance requirements for the technical adjustments; once again is the feedback and adjustment link, through the audience's response and teacher guidance to improve the use of technology; and finally is the automation of the formation of the link, to realize the naturalness of technical application (Li). The last one is the automation process, which realizes the natural fluency of the technique.

Psychological Adaptation Path, the operation mechanism of this path is manifested in three stages: the initial stage of pressure stimulation, the unique tension of the stage performance will activate the students' stress response system; the intermediate stage of cognitive reconstruction, students reconstruct their cognitive patterns through self-talk, attention regulation and other strategies; the advanced stage of habit formation, the establishment of a stable psychological pattern of performance. Research has shown that students' performance anxiety levels can be significantly reduced after systematic stage practice (Kim et al., 2024).

The ability integration path, whose integration process includes three levels: technical and artistic coordination at the basic level, to achieve a balance between technical accuracy and artistic expressiveness; system optimization at the intermediate level, to establish the optimal ratio of technical, artistic, psychological and other elements; and style formation at the advanced level, to develop a personalized performance style.

B. Regulatory system affecting the mechanism

The operating effect of the mechanism model is regulated by multiple factors, which constitute a complex regulatory system: the practice characteristics of the regulatory factors, the frequency of practice, too much or too little will affect the effect; the quality of practice, the size of the performance, the audience level, the venue conditions, etc. will have an impact on the operation of the mechanism; the diversity of practice, the combination of soloists, repetitions, choruses and other forms can produce a better overall effect. In terms of practice diversity, the combination of different forms of solo, duet, chorus, etc. can produce a better comprehensive effect. The quality of teachers' guidance has a direct impact on the operation of the mechanism, and professional guidance can improve the effect; the perfection of the feedback system determines the speed of ability enhancement; and the connection between the curriculum and practice affects the efficiency of knowledge transformation. Individual differences regulate the factors, the students' professional foundation affects the starting point of the mechanism; personality traits lead to different adaptation speeds, extroverted students usually adapt faster; the type of learning motivation determines the durability of the effect, and intrinsic motivation promotes the effect more significantly.

C. Dynamic development law of the mechanism

The influence mechanism shows obvious dynamic development characteristics: stage weight changes, in the primary stage, the skill transformation path dominates; in the intermediate stage, the psychological adaptation path plays a

prominent role; in the advanced stage, the ability integration path becomes the key.

Non-linear development characteristics, the influence effect of each path is not a uniform growth, but there will be a leap in competence at the critical nodes. Path interaction effect, there is a complex interaction between the three paths, skill transformation provides technical guarantee for psychological adaptation, psychological adaptation creates favorable conditions for ability integration, and ability integration in turn promotes the efficiency of skill transformation. This interaction effect makes the overall impact greater than the sum of the parts.

D. Educational application value of the model

The mechanism model has important practical guidance significance: firstly, it provides a theoretical basis for the scientific design of the practice program, which can be used to design targeted practice activities according to the characteristics of different stages; secondly, it provides a multidimensional framework for the assessment of students' development, which can be used to comprehensively assess the progress of the students from the three paths; and lastly, it provides a strategic guide to the teaching interventions, which can be used to take the most effective teaching methods according to the characteristics of the mechanism. effective teaching methods according to the characteristics of the mechanism. The study shows that the practice programs designed based on the model can lead to the improvement of students' comprehensive performance ability.

VI. SUGGESTIONS FOR OPTIMIZING THE TEACHING OF STAGE PRACTICE

In order to give full play to the role of stage practice on the promotion of vocal performance ability, this study puts forward the following optimization suggestions: firstly, to build a ladder-type practice system, design differentiated practice content and requirements according to the characteristics of students at different grades; secondly, to strengthen the integration of on- and off-campus practice resources and expand the practice platform; thirdly, to improve the evaluation mechanism of practice, and to establish multi-dimensional assessment standards; lastly, to strengthen the organic articulation between practice and the curriculum to form a virtuous cycle of "learning-practice-performance". Finally, strengthen the organic connection between practice and curriculum to form a virtuous cycle of "learning-practice-performance".

Of particular concern is the application prospect of digital technology in stage practice. Virtual reality and other technologies can provide students with richer simulated stage experience and make up for the lack of traditional practice opportunities. Zhang and Gao's (2025) study shows that digital technology-assisted stage practice can effectively improve the confidence and ability of beginners' performances.

VII. CONCLUSION

This study systematically explored the influence mechanism of stage practice on vocal performance ability of

music majors in Chengdu colleges and universities. It is found that stage practice positively affects vocal performance ability through three dimensions: skill strengthening, psychological adjustment and comprehensive ability cultivation. Although the current stage practice teaching in Chengdu colleges and universities has achieved some success, there is still room for improvement. Future research can further explore the differences in the effects of different practice modes and the individualized characteristics of the influence mechanisms. This study provides theoretical references for the practice teaching of music majors, and has practical significance for improving the quality of vocal talent cultivation.

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