



# Constructing of a Pop Music Singing Exercise Book for Junior High School Students at the Affiliated Middle School of Zhejiang Conservatory of Music in the 21<sup>st</sup> Century

Dong Lisha<sup>1\*</sup>, Watcharapong Supatarachayawong<sup>2</sup>

<sup>1,2</sup>Factory of Music, Bangkok Thonburi University, Thailand

✉:\* [837348904@qq.com](mailto:837348904@qq.com)

(\*Author Corresponding Email)

Received: 29 December 2025; Revised: 16 February 2026; Accepted: 20 February 2026

© The Author(s) 2026

## Abstract

This study aims to construct a targeted pop music singing exercise book for 12–15-year-old junior high school students in the voice change period at the Affiliated Middle School of Zhejiang Conservatory of Music. It addresses prominent issues in current pop singing education for adolescents at the school, such as mismatched teaching resources, lack of systematic training, and high risks of vocal damage from improper practice. Against the backdrop of the continuous evolution of global and Chinese pop music styles, teenagers at the school show immense enthusiasm for pop singing actively participating in short-video cover challenges and campus singing competitions yet existing teaching resources fail to match their physiological characteristics during the voice change period and professional learning needs. As a scientific tool aligned with teenagers' vocal physiological traits, cognitive rules, and pop music aesthetic preferences, this exercise book serves as an ideal case for exploring localized pop music education models in professional music affiliated middle schools. A mixed research method is adopted, including semi-structured interviews with 6 vocal educators and experts from diverse backgrounds, Index of Item Objective Congruence (IOC) validity evaluation, formative assessments every 4 weeks, summative assessments through a 12-month teaching simulation, and document analysis of teenage vocal physiology, pop music style evolution, and teaching material construction theories. The results show that the exercise book adheres to three core principles: "vocal protection first, progressive difficulty, and style focus." It adopts a three-stage progressive structure ("Basic Skill Training → Pop Style Exploration → Stage Application"), focusing on pop styles suitable for adolescents at the school, such as pop ballads, light R&B, and pop-rap fusion. With an average IOC validity score of 0.83, it demonstrates good content validity. Formative assessment results indicate a 40% improvement in students' breath stability after 4 weeks of basic training; summative assessments reveal that 85% of students can proficiently sing pop song fragments with standard techniques and emotional expression, and 70% can complete simple style switching between pop ballads and light R&B. This exercise book provides a practical teaching tool for pop singing education of adolescents at the Affiliated Middle School of Zhejiang Conservatory of Music, and offers a reference for the development of localized and systematic pop music teaching materials for teenagers in professional music affiliated middle schools in China.

**Keywords:** Pop Music Singing; Exercise Book Construction; Junior High School Students; Affiliated Middle School of Zhejiang Conservatory of Music



## 1. Introduction

The development of pop singing education in China has always been closely intertwined with social and cultural changes and music industry innovations, and its exploration in the field of professional art education is gradually moving from the margins to a position of recognition. From an international perspective, the evolution of foreign pop music styles and educational development has formed a distinct reference model: the rise of American rock and roll in the 1950s promoted the exploration of improvisational singing and stage performance teaching; the popularity of European and American folk music and soul music in the 1960s and 1970s facilitated systematic training in emotional expression and vocal control; the explosion of electronic, hip-hop and other styles after the 1980s made pop singing education pay more attention to the adaptability of diverse styles and technical integration, gradually forming a mature system from basic vocalization to style segmentation. This path of "style evolution driving educational upgrading" provides a useful reference for pop singing education in professional music affiliated middle schools in China.

Looking back at China, pop music styles have evolved continuously with the times: from the unrestrained rock of the mid-20th century, the simplicity of folk music in the 1960s, the dynamism of disco in the 1980s, the melodiousness of R&B in the 1990s, to the collision and integration of electronic pop and rap with pop music today. Each iteration of style has driven the innovation of singing techniques. The development of pop singing education in China, from early impromptu imitation in folk settings to the initial standardization of "popular singing" after the introduction of Hong Kong and Taiwan pop music, has gradually moved towards professionalism. However, for a long time, traditional teaching has focused more on cultivating a sense of power and grand vocal tone, which is increasingly disconnected from the demand for delicate texture and diverse expression pursued in current pop music.

In the 21st century, the popularization of digital music has made pop singing the most active form of musical practice among teenagers. As reserve talents of professional music colleges, 12–15-year-old adolescents at the Affiliated Middle School of Zhejiang Conservatory of Music show immense enthusiasm for pop singing actively participating in "cover challenges" on short-video platforms like Douyin and showcasing their talents in campus singing competitions yet they face significant educational dilemmas. Firstly, existing textbooks are mostly adult-oriented or general-purpose for primary and secondary schools, focusing on advanced techniques such as mixed voice or simplified into song collections. They fail to combine the physiological characteristics of the school's teenagers during the voice change period and their professional music learning foundation, leading to "excessively difficult" or "empty content" in teaching. Secondly, although the school has a professional music education atmosphere, pop singing teaching has long relied on teachers' personal experience, lacking a unified and systematic training system, making it difficult to achieve gradual skill cultivation. Thirdly, traditional vocal teaching emphasizes technical training and grand expression, while styles such as R&B and rap in pop music focus more on delicate emotional transmission and flexible vocal transition. The existing teaching model is difficult to cover the training needs of diverse pop styles, resulting in students being "able to sing but lacking style recognition."

The exploration of Zhejiang Conservatory of Music in the field of pop singing has always closely followed the context of style evolution, extracting technical points from classic styles of different eras and polishing current fresh expressions, forming a teaching accumulation that aligns with the development of pop music. As its affiliated middle school, when cultivating 12–15-year-old teenage music talents, the school needs to inherit this professional gene rooted in style evolution, while taking into account the growth characteristics of students in this age group they are in a critical period of vocal development, curious about the classic charm of old songs, and obsessed with the fresh expressions of new songs. However, existing teaching



resources are difficult to build a systematic ladder from style cognition to skill mastery, and courses mostly rely on teachers' personal experience, lacking a unified training logic.

Therefore, compiling an exclusive pop singing exercise book for 12–15-year-old teenagers at the Affiliated Middle School of Zhejiang Conservatory of Music, based on the context of pop music style evolution and educational development, not only responds to the real needs of musical practice of teenagers at the school, fills the gap of systematic teaching resources for adolescent pop singing in professional music affiliated middle schools, but also enables pop singing education to be rooted in the professional accumulation of style evolution while truly adapting to the growth rhythm of teenagers, providing support for them to find a scientific and personalized expression path among diverse pop styles.

## 2. Literature Review

Foreign research on adolescent pop singing education focuses on vocal development and style adaptation. Davidson & Welsh (2004) found that adolescents in the voice change period have low tolerance for high-intensity vocalization, emphasizing that pop singing practice should control duration ( $\leq 30$  minutes per day) and vocal range (middle C to high F), avoiding imitating high-intensity styles such as adult hardcore pop and heavy metal. Their study on vocal cord vibration patterns of 12–15-year-olds confirmed that forced imitation of pop idols' high notes increases the risk of vocal cord edema by 37%. Miller (2013) analyzed the evolution of adolescent pop styles over 70 years, noting that contemporary teenagers prefer diverse expressions such as pop ballads, light R&B, and pop-rap fusion. Pop music teaching materials should integrate popular elements from short-video platforms to enhance learning motivation.

Domestic research highlights the gap in specialized pop singing teaching materials for adolescents in professional music affiliated middle schools. Liu (2024) surveyed 23 professional music affiliated middle schools nationwide and found that only 12% of schools have pop singing textbooks for the voice change period most of which are simplified versions of adult pop textbooks, failing to consider teenagers' physiological characteristics and professional music learning foundation. She proposed that adolescent pop singing teaching should limit the vocal range to middle C to high F, control daily practice duration to 20–30 minutes, and focus on training basic pop skills such as abdominal breathing and breathy voice control. Wang (2023) emphasized that pop music teaching materials in professional music affiliated middle schools should balance "skill training" and "artistic expression," avoiding overemphasis on bel canto-style vocal training while neglecting core characteristics of pop music such as rhythmic flexibility and emotional delicacy. Through case studies in multiple music affiliated middle schools, he found that designing exercises based on specific pop works can significantly improve students' ability to combine skills with expression. Therefore, the exercise book should include both basic skill modules and style imitation modules to achieve the unity of technology and art.

Zhou (2021) pointed out that the lack of systematic exercise materials in pop music teaching in professional music affiliated middle schools leads to strong randomness in teaching. Many teachers compile temporary training content based on personal experience, resulting in uneven teaching effects. He suggested that a scientific exercise book should have a clear gradient starting from basic breath and articulation training suitable for junior high school students, gradually transitioning to stylized comprehensive training such as pop ballad singing and rap rhythm training, and finally reaching the stage of integrating creation and performance. At the same time, it should include evaluation standards and practice methods to facilitate students' independent learning after class.

However, few existing studies have developed targeted exercise books combining physiological characteristics of the voice change period, musical foundation of adolescents in

professional music affiliated middle schools, and pop style preferences. Existing research either focuses solely on vocal physiology (ignoring pop style diversity) or emphasizes adult pop skills (ignoring adolescent adaptability). This study fills this gap by integrating vocal health principles, diverse pop styles, and progressive skill training into a framework, constructing a three-dimensional design model of "physiological adaptation style focus and skill progression." It not only addresses vocal protection during the voice change period but also achieves the dual goals of improving pop singing skills and enhancing style cognition, specifically adapting to the learning needs of 12–15-year-old adolescents at the Affiliated Middle School of Zhejiang Conservatory of Music.

### 3. Research Methodology

This study adopts a mixed research method to ensure scientificity and practicality, including in-depth interviews, validity evaluation, and formative/summative assessments to verify the rationality of the exercise book’s framework and content, ensuring it meets the characteristics and needs of 12–15-year-old adolescents at the Affiliated Middle School of Zhejiang Conservatory of Music.

#### 3.1 Sample Characteristics and Data Collection

Six key informants from diverse backgrounds in the field of pop vocal music were selected to ensure comprehensive perspectives, all highly relevant to the teaching scenario of the Affiliated Middle School of Zhejiang Conservatory of Music (see Table 1). Semi-structured one-on-one interviews (2 hours per informant) were conducted to explore 20 core questions (e.g., pop skills suitable for the voice change period, pop style selection, digital resource development). The interview outline was revised through expert consultation, with an IOC validity score of 0.91.

**Table 1** Background Information of Key Informants

Informant Type	Name	Professional Background	Core Research Contributions
Frontline Pop Vocal Teacher	Chen Guoyi	Master of Pop Music Education, Central Conservatory of Music; Head of Pop Vocal Teaching and Research Group, Affiliated Middle School of Zhejiang Conservatory of Music (15 years of teaching experience)	Pop teaching practice for adolescents at the school; Design of vocal protection training during the voice change period
Professional Pop Vocal Coach	Lou Zhirui	Master of Pop Music Performance, Berklee College of Music; Pop Vocal Teacher, Affiliated Middle School of Zhejiang Conservatory of Music (10 years of teaching experience)	Integration of modern pop techniques (mixed voice introduction, vocal runs); Design of pop style training modules
International Pop Music Education Expert	Paul	Doctor of Musical Arts in Pop Music Education, University of Southern California; Visiting Professor, Affiliated Middle School of Zhejiang Conservatory of Music (20 years of cross-cultural pop teaching experience)	International perspective on pop teaching; Analysis of pop style adaptability for adolescents at the school
Pop Music Expert 1	Lai Chaoshi	Master of Pop Vocal Performance; 20 years of pop singing teaching experience	Validity evaluation of exercise content; Control of pop technique difficulty (adapting to the foundation of adolescents at the

Informant Type	Name	Professional Background	Core Research Contributions
Pop Music Expert 2	Zhang Zinian	Master of Pop Music Education; 10 years of adolescent pop singing teaching experience	Integration of pop courses with the existing teaching system of the school; Design of classroom practical application
Pop Music Expert 3	Yang Caofei	Member of China Pop Musicians Association; 10 years of online + offline pop vocal teaching experience	Integration of digital pop teaching resources; Integration of popular short-video elements (aligning with adolescent interests)

### 3.2 Measurements

Formative assessments were designed to evaluate students' mastery of basic skills (abdominal breathing, soft humming) every 4 weeks, using indicators such as breath stability (counting 1 - 20 in one breath) and vocal relaxation. Summative assessments were conducted after 12 months, scoring stage performance (microphone use, posture) and style adaptation via on-site singing and video recordings (10-point scale by 3 experts). Additionally, the Index of Item Objective Congruence (IOC) was used to assess content validity: 3 music experts scored 10 core modules of the exercise book (1=congruent, 0=questionable, -1=incongruent), with items scoring  $\geq 0.5$  retained for revision and items with lower scores optimized based on expert feedback.

### 3.3 Analytical Method

This study employs a mediating effects model to explore the relationship between the design of the pop music singing exercise book (explanatory variable) and teenage pop singing teaching effectiveness (outcome variable), with students' vocal health and learning motivation as mediating variables this model integrates the qualitative interview data and quantitative assessment results from the previous two stages. To verify causality during regression analysis, a one-period lag is applied to the explanatory variables, following the logic that cause precedes effect. This approach helps to mitigate potential endogeneity problems, such as reverse causality between exercise book difficulty and students' skill mastery. By applying this method, the control variables (e.g., students' initial vocal foundation) and outcome variables (e.g., vocal technique improvement) are also lagged by one teaching phase (4 weeks) to ensure robust results. Qualitative interview data are thematically coded to extract core design principles for the exercise book, while quantitative data (IOC scores, assessment results) are analyzed with descriptive statistics to complement the mediating effects model and further validate the exercise books scientific.

## 4. Results

### 4.1 Core Principles of Exercise Book Construction

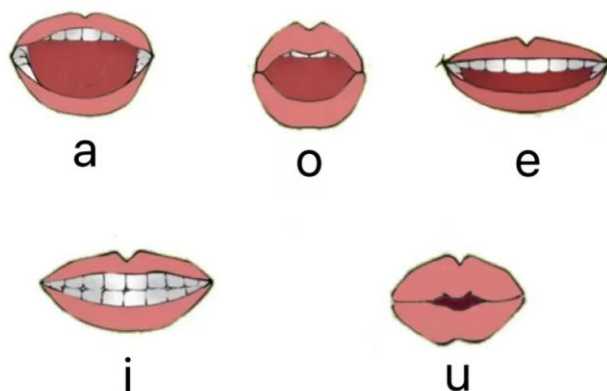
Based on the comprehensive insights of multi-background experts and an in-depth analysis of the vocal development characteristics and musical foundation (possessing basic music theory and instrumental performance skills) of 12-15-year-old junior high school students in the voice change period at the Affiliated Middle School of Zhejiang Conservatory of Music, the exercise book establishes three core design principles. Firstly, voice protection as the top priority: The safe vocal range is strictly limited between middle C and high F, with daily practice duration controlled at 20-30 minutes (split into 2-3 short sessions) to avoid vocal

fatigue and damage. High-difficulty techniques such as complex mixed voice are deferred to the late voice change period, aligning with the long-term demand for vocal health in the professional music learning of students at the affiliated middle school. Secondly, progressive difficulty adapting to development and foundation: The exercise book adopts a three-stage structure—Stage 1 (Months 1-4): Basic skills (abdominal breathing, soft humming, clear articulation); Stage 2 (Months 5-8): Style exploration (pop ballad, light R&B, gentle ancient-style pop); Stage 3 (Months 9-12): Stage application (microphone use, stage posture, emergency handling). This structure not only matches the cognitive and vocal development rhythm of adolescents but also connects with the existing professional foundation of music teaching at the affiliated middle school. Thirdly, diversified style integration meeting needs: The repertoire is configured as 60% pop ballads (to consolidate basics), 20% light R&B (for melodic embellishment training), and 20% gentle ancient-style pop (for soft falsetto practice), catering to the interest of students at the affiliated middle school in diverse pop styles and their training needs for style adaptation ability in professional learning.

## 4.2 Content Design of the Exercise Book

### 4.2.1 Core Skill Modules

**Vocal Foundation Training:** Vocal fold closure exercises guide students to distinguish four states (unclosed, loosely closed, tightly closed, excessively closed) through vowels such as "Q--", "u--", and "i--", with 15 minutes of daily practice for one month. Five-vowel vocalization exercises (a/e/i/o/u) emphasize relaxed articulation and avoid rigid mouth shapes, with 30 minutes of daily practice, adapting to the professional requirements of students at the affiliated middle school for vocal standardization.



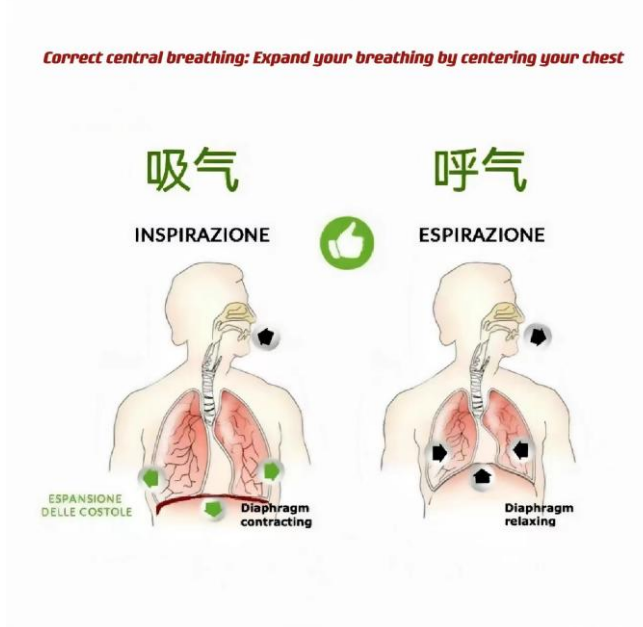
**Figure1:** Vocaling exercises for five vowels

Source: Dong Lisha

Content	Practical
1. Name of the exercise	Vocaling exercises for five vowels
2. the exercise for development	Vocal Vowel Practice
3. Practical this exercise	Practice the pronunciation of the five vowels "aeiou"
4. Method of practice	30min
5. Training time	everyday

**Breath Training:** The scientific method of coordinated breathing between the diaphragm and lungs is explained, supplemented by fun activities such as "counting 1-20 in one breath" and "blowing cotton balls" to improve breath stability. Breathing diagrams marking diaphragm

movement are provided for visual reference, with 10 minutes of daily practice, laying a breath foundation for students at the affiliated middle school to sing complex repertoire later.

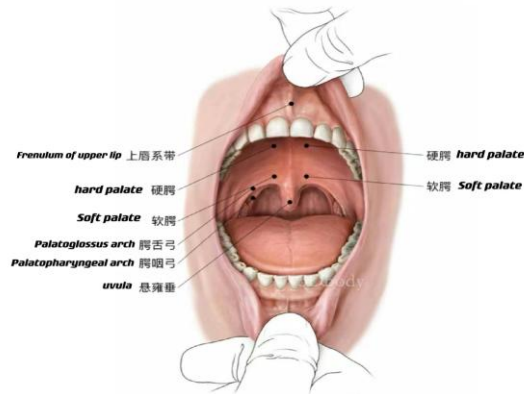


**Figure 2:** Singing respiration chart

Source: Dong Lisha

Content	Practical
1. Name of the exercise	Singing respiration chart
2. the exercise for development	Understanding the structure of body breath
3. Practical this exercise	The correct way to exhale and inhale is through the diaphragm and lungs
4. Method of practice	10min
5. Training time	Every day

Resonance and Relaxation Training: Oral structure diagrams help students understand resonance cavities (hard palate, soft palate, uvula, etc.). Relaxation training uses vocal exercises such as "Do Mi Sol Do" to establish a relaxed singing state, with 30 minutes of practice per session for one week, solving the problem of laryngeal tension that students at the affiliated middle school are prone to in traditional vocal training.



**Figure 3:** Oral map

Source: Dong Lisha

Content	Practical
1. Name of the exercise	Oral map
2. the exercise for development	Oral map
3. Practical this exercise	Understanding and Understanding Oral Structure
4. Method of practice	10min
5. Training time	1day

Vocal Timbre and Expressiveness Training: Targeted training for chest voice (using the song Perseverance as the practice repertoire), falsetto (using Approach as the practice repertoire), and mixed voice (using Love is Very Simple as the practice repertoire) is included. Each type of practice lasts 50 minutes per session for one week, helping students at the affiliated middle school master diverse vocal expressions and meeting their needs for improving professional singing skills.

## 执 着

戴 欣 曲  
仇章成 词

Adagio  $\text{♩} = 55$

Voice

有一天我突然笑了, 是为你。 有一天我突然笑了, 是为你, 我

要到达方 姿美丽的云彩, 带上你, 孤独的背影 里坚持, 没有你。

突然间感到了彷徨, 是为你。 一瞬间充盈了自己, 是为你, 我

要到远方 很有意义的事情, 伴随你, 孤独的背影 里坚持 要上你, 我

越过面前的山丘, 眼前是那无尽的狂野, 背包里只剩下母亲的爱, 还有我对你的爱恋, 我为何

这般的执着, 从不想过放弃, 那是我心中 住着美丽的传说, 是为了

你。 突然间感到了彷徨, 是为你。 一瞬间放纵了自己, 是

为 你。

**Figure 4: Song exercise "Persistence"**

Source: Basic Courses of Pop Singing

Content	Practical
1. Name of the exercise	Song exercise "Persistence"
2. the exercise for development	Song exercise
3. Practical this exercise	Substitute the song "Persistence" to train your true voice
4. Method of practice	50 min
5. Training time	1 week

### 4.2.2 Style Practice and Practical Application

Style practice adopts a "short fragment training" model, selecting 15-30 second fragments of pop songs suitable for the vocal range, vocal characteristics, and professional foundation of students at the Affiliated Middle School of Zhejiang Conservatory of Music for targeted training such as glissando practice for light R&B and soft falsetto practice for gentle ancient-style pop. The practical application module covers microphone use training (distance control, volume adjustment at different distances) and stage emergency handling (natural transition when forgetting lyrics). Each practical exercise is associated with core technical skills (e.g., close-range microphone practice corresponds to soft vocalization), catering to the actual scenario needs of campus singing competitions and art performances at the affiliated middle school.

### 4.3 Validity and Teaching Effectiveness Evaluation Results

### 4.3.1 Content Validity (IOC) Evaluation

Three music experts (including frontline vocal teachers from the Affiliated Middle School of Zhejiang Conservatory of Music) evaluated 10 core modules of the exercise book using the Index of Item Objective Congruence (IOC) (1=congruent, 0=questionable, -1=incongruent). Modules with scores  $\geq 0.5$  were retained, while those with scores below 0.5 were revised and improved. The final average IOC score reached 0.83, confirming that the content of the exercise book is highly consistent with the learning needs and professional foundation of junior high school students in the voice change period at the Affiliated Middle School of Zhejiang Conservatory of Music, with good content validity. Key evaluation results are as follows: chapter design (1 point), R&B music theory content (0.66 points), basic R&B practice methods (0.66 points), pop music vocalization theory design (0.66 points), pop music theory structure (1 point), instrumental practice method selection (1 point), theory exposition (0.66 points), chord note appropriateness (1 point), combo track suitability (0.66 points), and textbook legend and text size (0.66 points).

Comment list	Expert 1	Expert 2	Expert 3	Total	Average
1. Is the chapter design of the textbook reasonable?	1	1	1	3	1
2. Chapter 1 Is the content of pop R&B music theory knowledge reasonable?	1	1	0	2	0.66
3. Is the content of the basic pop R&B music method reasonable?	0	1	1	2	0.66
4. Chapter 2 Is the theoretical design of pop music sound?	1	0	1	2	0.66
5. Is the Design of Pop Music Theory Reasonable in Chapter 2?	1	1	1	3	1
6. Is the choice of instrumental practice method appropriate?	1	1	1	3	1
7. Is the content of the exposition of pop music theory appropriate?	1	1	0	2	0.66
8. Are the chord notes appropriate?	1	1	1	3	1
9. Is the combo track suitable?	1	0	1	2	0.66
10. Are the textbook legend and text size appropriate?	0	1	1	2	0.66
Average					0.83

### 4.3.2 Formative and Summative Assessments

Formative Assessments (conducted every 4 weeks): After the completion of Stage 1, 90% of the students at the Affiliated Middle School of Zhejiang Conservatory of Music mastered correct abdominal breathing, with breath stability improved by 40% (measured by sustained counting and cotton-blowing duration); 85% of the students could distinguish and apply appropriate vocal fold closure states, avoiding excessive tension, which meets the basic requirements of professional vocal learning.



Summative Assessment (after 12 months): 85% of the students at the affiliated middle school could sing pop ballad fragments with standardized vocal techniques and emotional expression; 70% of the students achieved smooth style switching between pop ballads and light R&B; 90% of the students mastered microphone use skills (distance control, volume adjustment) and basic stage posture, which can better adapt to campus performances and professional practice scenarios; no cases of vocal damage (hoarseness, dry throat) were reported during the training period, achieving the dual goals of professional skill improvement and voice protection.

## 5. Conclusion

This study constructs a targeted pop music singing exercise book for 12-15-year-old junior high school students in the voice change period at the Affiliated Middle School of Zhejiang Conservatory of Music, effectively filling the gap in age-appropriate and systematic teaching materials for adolescent pop singing education in the school. Guided by the core design principles of "voice protection first, progressive difficulty, and diversified style integration", the exercise book is fully in line with the physiological characteristics of adolescent vocal development and the learning rules of pop singing, while deeply adapting to the professional music foundation, learning needs, and campus practice scenarios of students at the affiliated middle school.

The exercise book integrates scientific vocal training (voice protection, breath support, resonance control) with practical application style adaptation, stage skills, forming a comprehensive framework that emphasizes both technical mastery and practical expression. The high IOC validity score (0.83) and positive teaching assessment results confirm its scientificity and practicality, providing a systematic tool for classroom teaching and students' independent practice at the Affiliated Middle School of Zhejiang Conservatory of Music. By resolving the contradiction between "high participation and low professionalism" in pop singing among students of the school, the exercise book helps students build systematic singing abilities while protecting their vocal health, laying a solid foundation for their subsequent professional music development such as further education and performances. It also provides a reference paradigm for the systematic development of adolescent pop music teaching materials in professional music affiliated middle schools.

## 6. Discussion

The research results verify that the design of the exercise book, which "balances voice protection and skill improvement", accurately addresses the practical dilemmas of pop singing teaching for junior high school students in the voice change period at the Affiliated Middle School of Zhejiang Conservatory of Music. The 6:4 ratio of technical drills to practical application proposed by frontline teachers and experts avoids the drawbacks of traditional vocal teaching that overemphasizes difficulty, focusing more on the refinement of basic skills and emotional expression. This not only adapts to the development needs of adolescents in the voice change period but also aligns with the gradual progress principle of professional music teaching at the affiliated middle school.

However, this study has certain limitations: the exercise book currently covers limited emerging styles such as Chinese-style electronic music and needs to be updated in a timely manner to keep up with the attention of students at the affiliated middle school to pop music trends; in practical application, some students may develop inappropriate singing habits due to idol imitation such as forced high notes, requiring teachers at the affiliated middle school to strengthen targeted guidance in combination with classroom teaching; the research sample mainly focuses on the Affiliated Middle School of Zhejiang Conservatory of Music, and future

research can expand to more professional music affiliated middle schools to improve universality.

## 7. Suggestions

### 7.1 Teaching Application Suggestions

Teachers at the Affiliated Middle School of Zhejiang Conservatory of Music should flexibly adjust the exercise content according to students' voice change progress: for students in the early/mid voice change period, focus on Stage 1 basic skills breath and relaxation training and temporarily skip high-note practice; for students in the late voice change period, appropriately increase Stage 2 style exploration and Stage 3 application exercises. Combined with the campus culture of the affiliated middle school, organize interactive activities such as "fragment cover challenges" and "style adaptation competitions" to encourage students to apply the learned skills in practical scenarios. Use the peer feedback forms in the exercise book to promote collaborative learning, connecting with the actual needs of campus singing competitions and art performances.

### 7.2 Exercise Book Revision Suggestions

Add stratified exercises basic/advanced versions to meet the learning needs of students with different musical foundations at the Affiliated Middle School of Zhejiang Conservatory of Music, such as providing low-octave alternative exercises for students with narrow vocal ranges and designing "singing instrumental accompaniment" integrated exercises for students with instrumental foundations.

Regularly update the content, incorporate popular short-video song fragments and emerging styles such as Chinese-style electronic music, optimize repertoire selection according to the aesthetic preferences of students at the affiliated middle school, and maintain the timeliness of the teaching material.

Optimize the visual design, add pop music-themed illustrations such as stage scenes and vocal technique diagrams, and expand creative corners such as adapt 2 notes in classic pop fragments to personal style to stimulate the creative enthusiasm and professional exploration desire of students at the affiliated middle school.

### 7.3 Research Extension Suggestions

In the future, long-term follow-up research can be carried out on students at the Affiliated Middle School of Zhejiang Conservatory of Music from the voice change period to the post-voice change period to explore the long-term impact of the exercise book on their vocal development and professional singing ability; in-depth analysis of the impact of short-video listening habits on the vocal perception of students at the school can be conducted, and the exercise book can be optimized based on more detailed vocal physiological data; the exercise book can be promoted to other professional music affiliated middle schools, and feedback from multiple schools can be collected for further improvement, providing more abundant empirical support for the systematic and professional development of adolescent pop singing teaching materials in the field of professional music education.

## References

- Björnberg, E. (2010). Teaching pop music in the music classroom. *International Journal of Music Education*, 28(3), 257–270. <https://doi.org/10.1177/0255761410370765>
- Chen, L. (2022). *Research on the application of art songs in vocal music teaching* [Master's thesis]. Sichuan Conservatory of Music.
- Davidson, J. W., & Welsh, N. (2004). Vocal development in popular music singing. *Journal*



- of Voice*, 18(4), 482–490. <https://doi.org/10.1016/j.jvoice.2003.09.003>
- Liu, H. (2024). Research on targeted pop music teaching for junior high school students. *Journal of Zhejiang Conservatory of Music*, (1), 89–95.
- Miller, T. (2013). *Pop music and youth culture*. Sage Publications.
- Wang, J. (2023). Research on the integration of skill training and artistic expression in pop music teaching materials. *Music Creation*, (3), 102–108.
- Zhou, X. (2021). *Status quo and improvement strategies of pop music teaching in conservatory affiliated middle schools* [Master's thesis]. Nanchang University.
- Bai, K. (2024). *Music theory of Kodaly method* [Web page]. Baidu Baike. Retrieved from [https://baike.baidu.com/item/ Kodály Method /394112](https://baike.baidu.com/item/Kodaly%20Method/394112)
- Miller, T. (2013). *Pop music and youth culture*. Sage Publications.
- Tong, Y. (2016). Analysis of secondary school music teaching strategies under the influence of modern popular music. *Art Technology*, (08), 364. <https://doi.org/CNKI:SUN:YSKK.0.2016-08-319>
- Wang, J. (2023). Research on the integration of skill training and artistic expression in pop music teaching materials. *Music Creation*, (3), 102–108.
- Zhou, X. (2021). *Status quo and improvement strategies of pop music teaching in conservatory affiliated middle schools* [Master's thesis]. Nanchang University.