

The Creating of Singing Book for a Cappella Music Association at Wuhan Technical College of Communication

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Abstracts

The purpose of this research is to study the basic singing problems of A Cappella, to create the A Cappella book for students in A Cappella music association of Wuhan Technical College of Communications, to evaluate the results achieved using the A Cappella book. The results were used to create an a cappella singing workbook and tested it by collecting skill assessment scores from 32 A Cappella music association students during and at the end of the term for 16 weeks. The study will be conducted between March 2022 and May 2023.

The results of the research are (1) The researchers found the basic singing problems, (2) The researchers summarized and analyzed the results by consulting literature, books and interviewing five experts. Made a new trombone exercise book, including 5 chapters, and formulated a 16-week teaching plan, and (3) The first test result test, the percentage was 80.75, the summative test, the percentage was 92.75, the experimental results showed that the students' professional level improved significantly.

Keywords: The Creating of Singing Book; Cappella Music Association; Wuhan Technical College of Communication

Introduction

The origin of A Cappella can be traced back to the church music in the Middle Ages - Gregory chant. It is a single part music form of unaccompanied pure vocal (male voice) singing, with Latin as the lyrics, improvisation without obvious beat, and based on a simple natural scale. With the explosive development of pop music style, vocal percussion followed. After the development of electronic music, it also integrates sound effects, and finally forms a modern beatbox art form. Contemporary A Cappella singing is all inclusive. In the 1990s, it joined electroacoustics and appeared in pop bands in a new form.

The A Cappella itself belongs to unaccompanied chorus, so it can consolidate, strengthen and improve students' basic music literacy. At the same time, A Cappella is also a group project, which can strengthen the interaction and communication between students, improve students' practical and social ability, and solve or alleviate some students' psychological problems to a certain extent. Moreover, A Cappella itself has rich humanistic connotation. When teaching, it can unconsciously let students feel its humanistic connotation and improve students' music appreciation ability (Zhai, 2021).

Breathing is the basis and motivation of singing, which is really the most important thing. First of all, students are required to stand with their heads up and chest up, and eliminate the bad habits of hunching, straightening the stomach and stretching the chin. The whole singing state is excited (eyebrows stretch, throat and two ribs open) and calm. Considering the fact that most students have finished the voice change, but their voice is still fragile, it is

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necessary to protect the students' vocal cords with high-position soft voice and head voice training. Secondly, solve the problem of "white voice", focus on the lower abdomen, and yawn to open the throat; Again, practice the vowels "u" and "u". These two vowels are easy to make the throat sink, and sing the downward scale gently with the inhaled state. In the process of singing, students are required to have a coherent and smooth breath, a stable throat, a unified position, and a loud volume. Then practice step by step, and tell them to raise their eyebrows slightly without relaxing their lower abdomen when singing, so that they can get a good head sound effect; Finally, the teacher should clearly tell the students to carefully feel the collective nature of A Cappella with their ears, and avoid highlighting the individual voice color.

Wuhan Technical College of Communications was founded in 1953. With the approval of Hubei Provincial People's Government in 2003, it was formed by the merger of the former national key technical secondary school Wuhan Water Transportation Industry School and Wuhan transportation management cadre college directly under the Ministry of communications. It is an independent Provincial Public Higher Vocational College, subordinate to the Department of education of Hubei Province. It has transported more than 100000 traffic management cadres and technical talents for national transportation and local economic development, formed outstanding advantages of Vocational Education in the industry and accumulated profound school running details. Like other higher vocational colleges in China, Wuhan Transportation Vocational College takes the cultivation of comprehensively developed technical talents as the primary goal. Therefore, how to implement music quality education in higher vocational colleges is also an urgent problem to be solved (Wuhan Technical College of Communications, 2022).

Literature reviews

A Cappella was introduced into China, a systematic training system for A Cappella has not yet been formed in China. It is only to use the methods of rehearsal of unaccompanied chorus and solfeggio to conduct A Cappella 's vocal rehearsal. Since 2000, the theoretical research of modern A Cappella in the mainland has gradually begun to have new development, but the books and materials available are still limited. The author believes that the concept of A Cappella is the same as that of unaccompanied chorus in essence, but in terms of practical significance, A Cappella is different from unaccompanied chorus.

In the articles of many famous musicians at home and abroad, they have put forward a relatively similar point of view. It is generally believed that A Cappella is an unaccompanied chorus. In fact, A Cappella added the form of "Beat-box" on the basis of vocal chorus. The most basic role of "Beat-box" is to play rhythm and set off the atmosphere, which also gives A Cappella a unique "accompaniment" form. At present, many domestic musicians have a strong interest in the "sinicization" of A Cappella In recent years, many Chinese folk songs have been adapted into A Cappella songs, and the unique singing form has injected new strength into folk songs. There are a large number of dissonant intervals in the adapted songs, which is really very different from the traditional unaccompanied chorus. The strong sense of hearing impact does not bring us an inharmonious sense of hearing.

We can bring these new rhythm training methods into the classroom to test the students' ability to cooperate with each other, and at the same time, we can also enhance the students' ability to perceive music. The charm of A Cappella lies in its rich multi-part sound. From the initial tension to the later happy participation of students in multi-voice music activities, it

needs a gradual long-term training process. Although most students like multi-part music, it is not easy to let students practice it. This requires teachers to treat each teaching seriously, cultivate students' long-term musical ability, and improve the fun of solfeggio training.

The main reason why modern A Cappella is different from traditional A Cappella is the change of singing style. Modern A Cappella's works are more diversified and fashionable than traditional A Cappella's works. Among them, the biggest factor affecting its fashion is the application and dissemination of modern popular works in A Cappella. The difference in the style of the deductive works directly affects the application and treatment of modern A Cappella's vocal techniques. Modern A Cappella singing techniques have been updated on the traditional A Cappella singing techniques, serving the personalized real voice and gas voice that appear in popular works. The frequent use of these real voice and gas voice has changed the style of music, and undoubtedly has also produced certain contradictions and restrictions on vocal singing techniques.

A Cappella's singing is a pure vocal singing art without accompaniment. Therefore, it has high requirements for the singer's music quality. In addition to having high singing ability, it must also have imitation and other skills. Therefore, unlike traditional music, A Cappella can only learn to sing. Its singing skills are not everyone can learn. This has led to a small number of A Cappella music teams in China, and the localization of A Cappella music in China is relatively slow. Nevertheless, modern A Cappella music has also formed a certain influence after it was introduced into China with China's reform and opening up (Li, 2018).

As an advanced singing art form, A Cappella has been integrated with pop music and folk music. In recent years, many A Cappella lovers have joined the music genre and started the localization exploration and innovation of A Cappella. There are also more and more A Cappella singing programs on the television screen, which are known by thousands of households. This paper analyzes the problems that A Cappella has encountered in the development of China, and puts forward corresponding solutions in order to provide some intellectual support for the development of A Cappella's music and the development of China's music industry.

Tone accuracy is one of the eternal themes in vocal music teaching, and it is also the standard that must be emphasized in the rehearsal of the A Cappella Orchestra. The intonation will be affected by many factors such as breath, articulation, movement and environment. Due to the different number of members of the orchestra, it is difficult to achieve the complete accuracy of each singer's voice. It is necessary to improve the overall solfeggio and ear training level and comprehensive music cultivation of the orchestra through long-term hard training.

Unlike the singing of single-voice melodies, A Cappella emphasizes that each voice part listens to each other, highlights the sense of cooperation, and strictly uses chords to calibrate the team. In addition, the book (*Discover your voice: Learn to Sing from Rock to Classic*), compiled by the famous American vocal music professor Tonade Brett and published by Shanghai Education Press in 2005, provides us with very practical intonation exercises, including chromatic scale and minus seventh chord training. These exercises are very helpful for pitch control and improve the stability of the singer's pitch to a certain extent.

Research Objectives

By clarifying the above research questions, the purpose of this paper is:

- 1.To study the basic singing problems of A Cappella
- 2.To create the A Cappella book for students in A Cappella music association of Wuhan Technical College of Communications.
- 3.To evaluate the results achieved using the A Cappella book.

Research Methodology

This research adopts interview and literature research method. This research is a citation and analysis of educational research related to the topic of this article. At the same time, the effectiveness of the teaching method is evaluated by collecting students' test scores.

Research Conceptual Framework

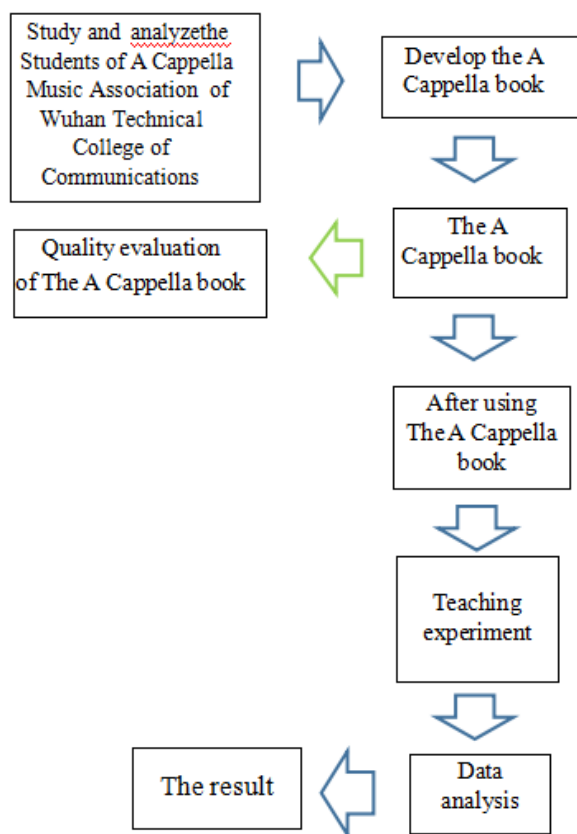


Figure 1 Conceptual Framework

Research Findings

The basic singing problems of A Cappella

The solutions to the A Cappella singing problem

1) Breathing exercises, "humming" exercises and "beeping" exercises can solve singing technical problems.

2) Kodaly teaching method, Kervin gestures, and Dalcroze's body rhythm can solve the intonation problem.

3) Dalcroze's body rhythm teaching can solve the rhythm problem.

4) Experts suggest that researchers use "harmonic multi-part" exercises to solve the problem of multi-part coordination. It should be divided into three special exercises: two-part, three-part, and four-part. Only by practicing "harmonic polyphony" and "polyphonic polyphony" can we better solve the problem of multi-voice coordination.

5) Experts suggest that researchers choose no less than five different music styles for singing practice. Five styles of jazz, rhythm and blues, Latin, rock and funk can be selected for singing practice to solve the problem of singing style.

6) Experts suggest that researchers can lead students to participate in various singing competitions, or lead students to participate in some master classes, or organize some students to observe classes, give them more communication opportunities, and often organize some forms of small-scale activities And mock exams, students can also be organized to practice and perform in excellent A Cappella clubs. Through these activities, students' psychological quality can be exercised.

7) Through interviews with five experts, the five experts agreed that learning solfeggio must help students learn A Cappella. Learning solfeggio can improve students' basic level of intonation and rhythm, and can improve students' comprehensive musicality and mutual tacit cooperation. It can also allow students to better understand multi-part music works, and it can also enable students Enjoy and love A Cappella even more.

Creating the A Cappella book for students in A Cappella music association of Wuhan Technical College of Communications

A Cappella singing practice book, including 5 chapters. A 16-week lesson plan is developed.

This A Cappella singing book is a set of teaching materials more suitable for students of A Cappella music association in vocational colleges after years of teaching experience and accumulation. This A Cappella singing book includes vocal exercises, intonation exercises, rhythm exercises, multi-part exercises, singing style exercises and music works and other basic singing exercises. Through the exercises in this A Cappella singing book, it can help singers master scientific vocalization techniques, form correct intonation and rhythm, realize awareness of multi-part coordination, master the relationship between various parts in different singing styles, and improve comprehensive musical skills. The ability to feel and cooperate with each other tacitly.

The A Cappella singing book written by the researchers includes the following five chapter:

Chapter One:A Cappella

Chapter Two: Basic exercises of A Cappella singing.

Chapter Three: A Cappella singing multi-part practice.

Chapter Four: A Cappella singing style practice.

Chapter five: Practice of A Cappella music works.

Evaluating the results achieved using the A Cappella book

The researchers set up two tests in the 16-week course, namely the First test in the 7th week and the Summative test in the 16th week. A cappella singing requires at least 4 people to complete the singing at the same time, so the researcher will 32 students Divided into 8 groups with 4 people in each group to conduct two tests, and at the same time, the results of the two tests were compared and evaluated.

The researchers analyzed and evaluated the test results after using the A Cappella singing book.

The analysis and results of test scores

The evaluation of performance test was used the rubric assessment method The performance test is divided into 7 standards: intonation, harmony, rhythm, voice method, timbre, melody, and musical expression.

Each criteria has 5 levels :

5=excellent

4=very good

3=good

2=fine

1=need to improve

Table 5-1 First test results

Students' performance test (grub)	The first test								Percentage	\bar{x}	S.D.
	Intonation (5)	Harmony (5)	Rhythm (5)	Voice method (5)	Timbre (5)	Melody (5)	Musical expression (5)	Total Score (35)			
S1-S4	3.5	3.5	4	4	4.5	4.5	4	28	80.00%	4	0.32
S5-S8	3.5	4.5	4	4.5	4	4	3.5	28	80.00%	4	0.32
S9-S12	4	4.5	4.5	4	3.5	4	4	28.5	82.00%	4.1	0.37
S13-S16	4.5	4	4	4	3.5	4	4	28	80.00%	4	0.32
S17-S20	4.5	4	4	3.5	4	4	4	28	80.00%	4	0.32
S21-S24	4	4.5	4	4	4.5	4	3.5	28.5	82.00%	4.1	0.37
S25-S28	4.5	4	4	4	3.5	4	4.5	28.5	82.00%	4.1	0.37
S29-S32	4	4	4.5	4	4	4	3.5	28	80.00%	4	0.32
Average								28.2	80.75%	4.04	0.34

The first test is scheduled after the seventh week of teaching. The test results showed that some students had moderate ability in Integrity and Stage presence.

Techniques with an average score of 28.2, percentage of 80.75%, mean (\bar{x}) of 4.04 S.D. of 0.34.

Table 5-2 The Summative test scores

Students' performance test (grub)	The Summative test scores								Percentage	\bar{x}	S.D.
	Intonation (5)	Harmony (5)	Rhythm (5)	Voice method (5)	Timbre (5)	Melody (5)	Musical expression (5)	Total Score (35)			
S1-S4	5	4.5	5	4.5	4	5	4	32	91.00%	4.6	0.37
S5-S8	5	4.5	4.5	4.5	4.5	5	4.5	32.5	92.00%	4.6	0.20
S9-S12	5	5	4.5	4.5	4.5	4.5	5	33	94.00%	4.7	0.24
S13-S16	4.5	5	4.5	4.5	4.5	5	4.5	32.5	92.00%	4.6	0.20
S17-S20	4.5	5	4.5	4.5	4.5	4	5	32	91.00%	4.6	0.20
S21-S24	5	4.5	5	4.5	4.5	5	4.5	33	94.00%	4.7	0.24
S25-S28	4.5	5	5	4.5	4.5	4.5	5	33	94.00%	4.7	0.24
S29-S32	5	4.5	4.5	4.5	4.5	5	5	33	94.00%	4.7	0.24
Average								33	92.75%	4.64	0.24

The summative test is scheduled the Sixteenth week of teaching.

Through the summative test, it can be seen that the students have greatly improved in Intonation, Harmony, Rhythm, Voice Method, Timbre, Melody, and Musical Expression, with an average score of 33 points and a percentage of 92.75%. mean (\bar{x}) was 4.64 points and S.D. were 0.24 points.

Table 5-3 The comparison between the first test and summative test scores

NO.	First test scores			Summative test scores		
	%	\bar{x}	S.D.	%	\bar{x}	S.D.
S1-S4	80.00%	4	0.32	91.00%	4.6	0.37
S5-S8	80.00%	4	0.32	92.00%	4.6	0.20
S9-S12	82.00%	4.1	0.37	94.00%	4.7	0.24
S13-S16	80.00%	4	0.32	92.00%	4.6	0.20
S17-S20	80.00%	4	0.32	91.00%	4.6	0.20
S21-S24	82.00%	4.1	0.37	94.00%	4.7	0.24
S25-S28	82.00%	4.1	0.37	94.00%	4.7	0.24
S29-S32	80.00%	4	0.32	94.00%	4.7	0.24
Average	80.75%	4.04	0.34	92.75%	4.64	0.24

As seen in Table 4-5, in the total score of the first test, the percentage was 80.75, the mean(\bar{x}) was 4.04, and the S.D. was 0.34. In the summative test, the percentage was 92.75, the mean(\bar{x}) was 4.64, and the S.D. was 0.24. The progress the students made showed that the A Cappella singing book developed by the researchers was working.

The difficulty and popularity of learning A Cappella singing are low, resulting in a smaller and more limited target population for this study suggestion: The education department should focus on the popularization of A Cappella, carry out A Cappella popularization education for all age groups, and train more A Cappella singing talents. Focus on supporting A Cappella scientific research projects, encourage music teachers to carry out teaching research, and develop various A Cappella singing teaching materials and exercise books. Focus on holding singing expert lectures and master classes to create learning and communication opportunities and platforms for A Cappella singing teachers and students.

Due to the vast territory of our country, there are a large number of A Cappella associations in colleges and universities all over the country, and some colleges and universities lack teaching facilities, which makes many teaching methods unable to be implemented. suggestion: Teachers can use some of the exercises in this study to help students improve their singing problems. Teachers can use some teaching methods in this study to design teaching programmes suitable for students. Learning can be assessed through examinations, and teachers find appropriate exercises and teaching methods through reflection and discussion. The researchers hope that more music teachers will develop more a cappella singing teaching materials and practice books. Future research should add more a cappella singing exercise book content. Collect more expert opinions, further revise and improve the acapella singing exercise book, so that it has the opportunity to become a marketable teaching material. Future researchers can draw inspiration from the selection of themes, the arrangement of music and other aspects, broaden their thinking, and use it to build a cappella team in our country.

1. The studying literature and books, and through interviews with five singing experts, the researchers found a solution to the A Cappella singing problem.

1) Breathing exercises, "humming" exercises and "beeping" exercises can solve singing technical problems.

2) Kodaly teaching method, Kervin gestures, and Dalcroze's body rhythm can solve the intonation problem.

3) Dalcroze's body rhythm teaching can solve the rhythm problem.

4) Experts suggest that researchers use "harmonic multi-part" exercises to solve the problem of multi-part coordination. It should be divided into three special exercises: two-part, three-part, and four-part. Only by practicing "harmonic polyphony" and "polyphonic polyphony" can we better solve the problem of multi-voice coordination.

5) Experts suggest that researchers choose no less than five different music styles for singing practice. Five styles of jazz, rhythm and blues, Latin, rock and funk can be selected for singing practice to solve the problem of singing style.

6) Experts suggest that researchers can lead students to participate in various singing competitions, or lead students to participate in some master classes, or organize some students to observe classes, give them more communication opportunities, and often organize some forms of small-scale activities And mock exams, students can also be organized to practice and perform in excellent A Cappella clubs. Through these activities, students' psychological quality can be exercised.

7) Through interviews with five experts, the five experts agreed that learning solfeggio must help students learn A Cappella. Learning solfeggio can improve students' basic level of intonation and rhythm, and can improve students' comprehensive musicality and mutual tacit cooperation. It can also allow students to better understand multi-part music works, and it can also enable students Enjoy and love A Cappella even more.

2. The researchers summarized and analyzed the results by reviewing literature, books and interviewing five experts. Create A Cappella singing practice book, including 5 chapters. A 16-week lesson plan is developed.

3. The researchers conducted a teaching experiment on 32 students from the A Cappella Music Association of Wuhan Technical College of Communications by using the A Cappella singing book. The first test result mean (\bar{x}) of 4.04 and the summative test result mean (\bar{x}) was 4.64, the experimental results showed that the students' professional level improved significantly.

Discussion

Based on the research objectives, the discussion will be presented as follows:

Discussion about major findings of the knowledge and teaching problems for A Cappella.

A Cappella knowledge and teaching problems have six parts, namely: 1) singing technical problems, 2) intonation problems, 3) rhythm problems, 4) multi-part coordination problems, 5) singing style problems, 6) participation Competitions, master classes, club rehearsals, performances, mock exams, organizing some students to attend classes, 7) learning solfeggio will help students learn A Cappella. The main findings are published in this way because solving a cappella singing problem can help students improve their singing skills and promote the comprehensive singing ability of A Cappella music club students. In addition, according to Qian Kun (2019) research "When singing an A Cappella work, all group members should make a detailed analysis of the work and understand the style of music to determine the singing style. Avoid individual timbres, keep the vocal state consistent, and sing with common timbres to ensure the fusion of voice parts and the coordination of the whole work. From the research of Zhang Yuan (2020), "singing technology is one of the eternal themes of vocal music teaching, and pitch Music has an integral role and must be emphasized in all a cappella rehearsals. In ", I found that singing any work, such as jazz or Latin, must be determined in the practice of singing skills.

Discussion about major findings of The A Cappella singing book and find the applicable teaching method.

The main findings are because the A Cappella singing practice books and finding suitable teaching methods can improve the existing teaching mode, improve the efficiency of teaching and learning, and enhance students' singing ability. the research results are consistent with Shen Shijun (2022) "When students are teaching Dalcroze's body rhythm, they can understand more deeply the importance of physical and mental relaxation for singing, and through their own research, they can figure out what is related to themselves. Voice training methods and skills that are suitable for voice conditions."

Discussion about major findings of the achievements obtained after using the A Cappella Singing book.

The main conclusion is that the teaching experiment conducted by the researchers using the A Cappella singing exercise book shows that the teaching method in this thesis is effective and feasible. The research results are consistent with Wang Jing's (2020) theory or research that "teachers choose scientific and reasonable training methods according to students' characteristics in teaching, which is the key to improving the teaching quality of skills courses". It was found that effective practice coupled with sound teaching methods can effectively improve teaching effectiveness and student performance levels

Recommendation

1. Practical Recommendations

Due to the vast territory of our country, there are a large number of A Cappella associations in colleges and universities all over the country, and some colleges and universities lack teaching facilities, which makes many teaching methods unable to be implemented. suggestion:

1. Teachers can use some of the exercises in this study to help students improve their singing problems.

2. Teachers can use some teaching methods in this study to design teaching programmes suitable for students.

3. Learning can be assessed through examinations, and teachers find appropriate exercises and teaching methods through reflection and discussion.

2. Recommendation for future research

1. The researchers hope that more music teachers will develop more a cappella singing teaching materials and practice books.

2. Future research should add more a cappella singing exercise book content.

3. Collect more expert opinions, further revise and improve the acapella singing exercise book, so that it has the opportunity to become a marketable teaching material.

4. Future researchers can draw inspiration from the selection of themes, the arrangement of music and other aspects, broaden their thinking, and use it to build a cappella team in our country.

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