



A STUDY USING BREATHING EXERCISE FOR VOCAL MUSIC BEGINNER SINGING AT JINZHONG VOCATIONAL SCHOOL IN SHAN XI, PROVINCE

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ABSTRACT

The purpose of this study was: 1) to create breathing exercises; 2) to study the assessment results of breathing exercises; 3) to study students' satisfaction with the vocal beginner singing. Use experimental research to practice in small groups. The researcher reviewed the literature and consulted expert opinions on creating teaching plans and breathing exercises. The training focuses on teaching individuals and groups separately. Experiment with 20 students who are major volunteers in Jinchuang Vocational College. Shanxi Province, a total of 15 weeks, along with a three-phase assessment from September to December 2020.

The results of the experiments were: created a breathing exercise using the same practice, expert advice as a guide, and a lesson plan was created. Received 15 breathing exercises and 3 phase assessments. The distance to be evaluated was 68.28 / 74.17 / 83.42. The students had an average satisfaction level of 4.67 (5 levels). The assessment results were in a good direction. The exercises should be expanded to new students at other levels.

Keywords: Breathing Exercise, Beginner, Singing

Introduction

Ershou Meigui (2020) Jinzhong vocational secondary school (formerly yuci vocational middle school) was founded in 1984. In 1992, it was rated as one of the first key vocational high schools in Shanxi Province. In 2000, it was recognized as a national key secondary vocational school by the ministry of education. The school has 3,000 students and 243 on-job staff. It includes about 300 beginners, aged between 15 and 18. Students who have passed the stage of vocal change but have never systematically studied vocal singing without any musical foundation. The researchers teach vocal music here and were responsible for helping these students learn the basics of vocal music.

Why do vocal beginners have problems in singing and breathing?

Zhang Huiqi (2014) "Singers must adjust their qi first" was the record of ancient Chinese vocal theory, but the status of breath in singing has not changed at all, because it directly affects the quality, pitch, and artistic expression of the singer's singing voice. If you can't breathe, it will have a very important effect on vocalization. For beginner vocal students, the use of breathing was also a big problem, because it both familiar and difficult to master. Even for many professionals, because of inadequate breathing, the singing level cannot reach its peak, which inhibits their development.

What problems do vocal beginners have in singing breathing?

Titze (2008) vocal music is a type of singing performed by one or more singers, either with instrumental accompaniment or without instrumental accompaniment (a cappella), in which singing provides the main focus of the piece. Music that employs singing but does not feature it prominently was generally considered to be instrumental music (e.g. the wordless women's choir in the final movement of Holst's symphonic work The Planets) as was music without singing. Music without any non-vocal instrumental accompaniment was referred to as a cappella.



Zhao Zhou (2020) breathing was the origin of vocal music that the driving force of singing, and considered the foundation and direction in singing. Therefore, breathing was no longer a natural physiological instinct in singing and even an important factor in singing skills. Any singing performance requires vocal training before singing, which was inseparable from correct breathing. In essence, the physiological performance of the human respiratory function when speaking and singing was the same, but it was very different in application. Speaking and breathing were relatively free and random. You don't need to consider the expiratory volume, breathing speed, and breathing position. Singing and breathing require our singers to be prepared and master breathing skills. Length and strength need to be adjusted by breathing. Li Changping (2005) under the guidance of teachers, students continue to consciously control and correct and repeatedly complete certain actions or activity methods to form teaching methods of skills, techniques behavior habits. In terms of physiological mechanism, the practice of forming students in the nervous system was widely used in teaching in various subjects, especially instrumental disciplines (such as Chinese, foreign languages, mathematics, etc.) and technical disciplines (such as sports, music, Fine arts, etc.)

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Problems of chorus training for beginners limited, physical knowledge, good-correct breathing exercises, creating and developing appropriate singing exercises for the vocal beginner singing. Therefore, creating a singing practice is an important problem that should be created and developed for use by students. The vocal music department mainly recruits vocal beginners who were 15 to 18 years old and have zero singing foundation. In the daily course teaching, the school teachers found that in the process of vocal music teaching, students would have problems such as strained voice, unstable pitch, and lack of coherence when singing. Through studying the literature, it was found that these problems were caused by the small singing.

Research Question

1. How to create vocal breathing exercises?
2. How to help vocal beginners better solve the problem of singing breath?
3. What was the satisfaction level of students after using the breathing exercise?

Research purpose

1. To create vocal breathing exercises.
2. To study the assessment results after learning the breathing exercise.
3. To study students' satisfaction using the breathing exercise.

Research scope

1. Jinzhong Vocational secondary school is a high school and vocational school in Shan Xi province, China. The Jinzhong Vocational secondary school has two campuses in the east and the west, with a total enrollment of nearly 3,000 students and 243 faculty members, including 217 full-time teachers. It also has many outstanding teachers, backbone teachers, and academic leaders at the national and provincial levels. At present, there were 14 professional high schools including mainly fine arts, music (dance, vocal music, piano), medicine, and others.



2. Target vocal music beginner age in high school of Jinzhong vocational school, range between 15 - 18 years old, volunteered to participate in senior one, including 20 students.

3. The first semester of the 2020 academic year of the general high school curriculum had offered a 4 month of course, during the academic years 2/2020. So, the entire course takes 15 weeks, while the training course takes 12 weeks, about one class per week. 3 weeks for the exam.

4. The author browsed 15 books and a master's doctoral thesis on training and development of singing breathing skills and selected 8 etudes and 5 Bel Canto songs as the exercise repertoire for singing breathing skills training.

Research process

The study is experimental research, breathing exercises for music beginners. To create breathing exercise courses, including single-set experiments, validation, consistency and effectiveness of tools, observations, and interviews with trial participants. It includes the melody of Chinese and western music, teaching skills, and practical research needed in the 21st century.

1. To interviews with expert groups, it was found that vocal beginners had problems with singing breathing;
2. Create singing breathing exercises (training courses, exam courses, practice materials);
3. To consult the relevant information, talk with the expert group about the creation of singing breathing exercises. (The researcher created the breathing exercises by reviewing the original exercises) Along with mixing expert advice and creating a lesson plan for teaching learners;
4. The 20 volunteer students were selected to carry out the teaching experiment of singing and breathing exercises;
5. Data collection. In the 5, 10, and 15 weeks of the course, the researchers used the feasibility evaluation table of "lyrics breathing exercise evaluation standard" to record the performance of 20 senior high school students according to the evaluation standards of "singing breathing exercise" "curriculum plan feasibility evaluation table", and through comparative analysis to evaluate whether singing breathing training can improve the singing breathing ability of vocal music beginners;
6. The results of three examinations and the questionnaire on students' satisfaction were collected for analysis and evaluation; and
7. The experimental results were obtained, and the teaching experiment of singing breathing practice was discussed.

Definition

1. Breathing Exercise: Breathing exercises were used to help vocal music learners train professional singing breathing methods. It consists of four parts: teaching courses, examination courses, teaching materials, and a student satisfaction survey

2. Beginner singing: Singing beginners refer to all the singing learners who have not learned professional singing methods and methods systematically. The vocal music beginners in this paper were mainly 15 to 18 years old students studying vocal music in Jinzhong Vocational secondary.

Results

The analysis results were as follows the analysis results were found on the following points. 1) to create breathing exercises; 2) to study the assessment results of breathing exercises; 3) to study students' satisfaction with the vocal beginner singing.



1. Create the vocal breathing exercises

Through interviews with expert groups, it was found that vocal beginners had problems with singing breathing. Discuss with the expert group to create a singing breathing exercise. Along with mixing expert advice and creating 12 lesson plans. Create singing breathing exercises (training courses, exam courses, practice materials). The entire course takes 15 weeks, while the training course takes 12 weeks, about one class per week. 3 weeks for the exam.

1.1 Exercise plan

Table 1 Singing breathing exercise course plan

	Lesson plans	song
The first stage of learning content (Week 1 to 4)	According to the teaching plan the first stage mainly tests the students to use the correct singing and breathing methods for vocal exercises.	Etude No.1 Etude No.2 Etude No.3 Etude No.4
The second stage of learning content second test (Week 6 to 9)	According to the teaching plan, the second stage mainly tests the students to use the correct breathing method for simple song singing. The focus is on the support of the waist and abdomen for the breath.	Etude No.5 Etude No.6 Etude No.7 Etude No.8
The third stage of learning content second test (Week 11 to 14)	According to the teaching plan, the test of the third stage is that students use the correct singing and breathing methods to sing some simple artistic songs. The focus is on the fluidity and uniformity of breathing, as well as the flexibility of singing breathing.	ALL Etude (Eight Etudes)

Form table 1: There were 3 teaching stages, each stage has 4 weeks of courses, a total of 12 weeks of practice courses. Eight Etudes and five songs were used as teaching materials. These etudes were selected by the researchers after absorbing the recommendations of the expert group and scored 0.76 in (table 3) questionnaire on the feasibility of breathing etudes, which proved the effectiveness of etudes and songs.

1.2 Examination plan

During the use of teaching exercises, the researcher has three tests for students, so the researcher has made a test plan. As shown in Table 2.

Table 2 Singing breathing exercise Examination plan

	Examination point	Song
The first test (Week 5)	According to the teaching plan the first stage mainly tests the students to use the correct singing and breathing methods for vocal exercises.	Etude No.1 EtudeNo.2 Etude No.3 EtudeNo.4



The second test (Week 10)	According to the teaching plan, the second stage mainly tests the students to use the correct breathing method for simple song singing focusing on the support of the waist and abdomen for the breath.	EtudeNo.5 EtudeNo.6 EtudeNo.7 EtudeNo.8
The Final test (Week 15)	According to the teaching plan, the third stage that students use was the correct singing and breathing methods to sing some simple artistic songs. Focus on the flow and uniformity of breathing, as well as the flexibility of the singing breathing.	ALL Etude (Eight Etudes)

The examination plan consists of two-stage examinations and one final examination. For a total of 3 weeks, the test content includes 8 Etudes and five songs.

2. Student achievement statistics

After learning breathing training for beginners of vocal music, researchers will count their academic achievements from seven aspects (intonation, rhythm, melody, pronunciation, posture, timbre, and volume). The total score of each option was 10, and the total score 70. The evaluation results received by students were listed in the following four charts.

Table 3 Evaluation results (T1/ T2 / T3)

Test	T1	T2	T3
Average score (70)	47.8	51.93	58.4
Percentage (100)	68.28	74.17	83.42

$$T1/ T2 / T3 = 68.28/74.17/83.42$$

The researcher and teacher groups associated with panic rated 3 times, for example, 47.8/51.93/58.4, and the percentage scores were 68.28/74.17/83.42 respectively. It was a process for the students to learn singing and breathing exercises, and the scores of the three examinations increase step by step. The results of the third final examination exceeded the target score of 80 and reached 83.42, which proved that the singing breathing exercise was effective and the ideal experimental results were met.

3. Student satisfaction evaluation

We use five grades as the scoring criteria: very satisfied 5, satisfied 4, generally, 3, dissatisfied 2, not involved 1. The specific scoring criteria were 4.51-5.0 for very satisfied, 3.51-4.50 for satisfied, 2.51-3.50 for average, and 1.51-2.50 for dissatisfied. 1-1.50 means no participation.

Table 4 Satisfaction rating table of the 20 students

No.	Topic	Total	\bar{X}	
1	Do you like vocal lessons once a week	98	4.9	very satisfied
2	Do you like the song the teacher chose for you?	95	4.75	very satisfied
3	Do you like your vocal music teacher?	94	4.7	very satisfied
4	Do you like the way of your vocal music teacher teaching?	95	4.75	very satisfied
5	Do you like the teacher's teaching method?	94	4.7	very satisfied
6	Do you think the teaching exercise suits you?	97	4.85	very satisfied



7	Do you think vocal music has made great progress?	90	4.5	satisfied
8	Do you like the etude the teacher chose for you	89	4.45	satisfied
9	Do you like vocal music lessons	92	4.6	very satisfied
10	Would you like to practice singing breathing exercises after class	90	4.5	satisfied
Total			4.67	very satisfied

The average score of the first question was 4.90, which means very satisfied. Among the 10 questions, the students got the highest score. It can be seen that the students were very satisfied with the arrangement of a weekly singing and breathing exercise course. The average value of the seventh question and the tenth question was 4.50, indicating satisfaction. The score was the lowest in 10 questions. From the score of the seventh question, we can see that some students do not very satisfied with their progress in singing and breathing, and think that there was still the possibility of getting better grades. From the score of the tenth question, we can see that students' initiative in after-class practice still needs to be improved. Finally, the average score of 10 questions was 4.67. It can be seen that the students were very satisfied with the breathing practice of vocal music. It proves the effectiveness of breathing practice in singing.

Conclusion

The researcher reviewed the literature and consulted expert opinions on creating teaching plans and breathing exercises. The training focuses on teaching individuals and groups separately. The singing breathing exercises in fifteen weeks of courses, twelve weeks for teaching courses, three weeks for examination courses, use eight Etudes and five songs. Twenty vocal music beginners aged 18-20 were major volunteers at Jinchuang Vocational College. Shanxi Province, a total of 15 weeks, along with a three-phase assessment from September to December 2020.

The research results of the experiments created a breathing exercise using the same practice, expert advice as a guide, and a lesson plan was created. The experiment found that the percentages of the 3 examinations were 68.28/74.17/83.42, respectively, 80 points higher than expected. It shows that singing breathing practice does effectively. Through the research study, the satisfaction degree of 20 subjects in singing courses and breathing exercises accumulated an average score of 4.67, which showed students were satisfied with singing and breathing exercises.

Discussions

The researchers created the singing breathing exercises that consulted the expert group's suggestions and invited the expert to discuss the singing breathing exercises from aspects in teaching courses, examination courses, teaching materials, examination evaluation standards, and student satisfaction evaluation standards. The feasibility evaluation was in five areas. The researchers refer to the natural deep breath described in Lv Ying's (2015) long tone practice and store the breath in the waist circumference area. Then with the feeling of sneezing, the air flows through the glottis with a particular dynamic pressure, the larynx keeps falling naturally, the vocal cords close to block the air and vibrate. The flows exhalation, then vocal cord closures properly coordinated, should be a feeling of "first tight then open" or "tight with open" in the larynx.

The author of this paper agrees with Alan Hugh Watson (2014) in the first the emphasis on keeping the chest high and stable leaving the diaphragm and abdominal muscles to draw air in or drive it out. This strategy may be referred to as "pear shape up" (referring to the combined shape of the chest and abdominal cavities), "belly in", or "noble" posture. This point of view enables beginners to understand the correct posture of the upper body when breathing,



which does help the beginners to judge whether their upper body singing posture was correct in daily practice. According to Yang Zhi (2012), singers should not shrug their shoulders and lift their chests when they inhale. And when breathing in, you can use the feeling of smelling flowers, inhale through the nose to experience deep breathing, and you can insert your hands into your waist to help you experience the movement feeling of your abdomen when breathing. For beginners who can't find the experience of deep breathing, you can spread your feet the same width as your shoulders, and then bend over 90 degrees with your hands akimbo. When you breathe in, you can feel the expansion of Dantian outward and when you exhale, the contraction of Dantian inward. "S" sound-blowing practice. The front teeth close gently, the lips open, and the tip of the tongue against the back of the lower teeth. After deep breathing in the lower abdomen, let the breath come out from the friction between the teeth, and make a long "s" aspirated sound. Xiao Hong (2005) and Bao Wengqing (2005) said understandable that beginners want to achieve results early and quickly, but if they only want to learn to master the knowledge quickly, they will not be able to do so quickly. Vocal music does differently from other subjects. As long as English, mathematics, chemistry, and other subjects take time to learn, there will always be some gains. But vocal music does not. If the method or time was not right, it was likely to get worse and worse. The researchers agree with them that breath does the driving force and foundation of singing, and the application of singing breath do also the most complex and long process in the process of singing learning. Beginners of singing should study solidly, and should not be eager for success.

Besides, Xiao Hong (2005) and Wu and Mengmeng (2017) said the breath of singing plays a role in mobilizing, controlling, and relaxing the organs involved in singing, with a good state of breathing our throat, pharyngeal cavity, chest, and abdomen can maintain a positive state of relaxation. Good breathing, our voice will become flexible, we can pronounce easily and freely, and we can sing freely. (Alan Hugh Watson, 2014; Bao Wengqing, 2005; and Cui Shuhui, 2016) The researchers agree that breath was the source of great songs. All songs need the friction between breath and vocal cords, and the resonance of each cavity of the body. Therefore, singing breath training was a basic; skill that a singer must practice for a long time and master skillfully. In the career of a singer, he will always learn and train his singing breath and skills. Compared with Wu Mengmeng (2017) training for beginners, breathing training does the most basic and necessary training.

Therefore, to improve the singing level, we must first do a fantastic job in breathing training. 1) Practice connecting notes. Through continuous tone practice, students can feel the different pressure of the chest and the abdomen at the beginning, middle, and end of the three stages. The practice of continuous tone should be as slow and long as possible, which can strengthen the exercise of students' lack of breath and expand their breathing ability. 2) Long jump practice. The practice of rope skipping makes the sound more flexible and colorful. In the long jump training, we should keep the low throat position, jump with abdominal muscles, keep breathing, and then sound. High jump training can solve the problem of singer voice divergence. 3) Practice the combination of connection and pause. (Alan Hugh Watson, 2014; Cui Shuhui, 2016; and Huang Yulin, 2019) This practice method cultivates fluent and continuous singing method, jumping, and powerful singing method. To better exercise the ability to control breathing. The researchers think that these exercises were not suitable for beginners to learn singing breathing, and the difficulty coefficient was high, so it was difficult for beginners to master these skills accurately. Zheng Linying (2012) expiratory resistance to maintain inhalation. Chest abdominal breathing was used. When exhaling, the first thing to do keep breathing, give the diaphragm an outward and upward force. As you inhale, you should feel the whole body expand outward. All the inspiratory passages were relaxed and open. You can take a deep breath and feel like a flexible ball. Bel canto emphasizes deep breathing, must keep breathing state, and exhale muscle group to form a confrontation, produce pressure, evenly and slowly control breathing, and support singing, so that singing presents a mellow, full, unobstructed, bright voice.



Researchers believe that for beginners of singing, breathing in and out should mainly ensure the correct breathing posture. As you exhale, open your throat, relax and breathe evenly. Antagonistic exhalation does too challenging for beginners. Zhang Huiqi (2014) surprise practice. When people do frighten or see unexpected things, the contraction of the nervous system will drive the shrinkage of the respiratory muscles. This rapid respiratory expansion movement can control the breath. Such as long-term training surprised feeling, quickly inhaling breath in the fast-vocal singing. Researchers believe that for beginners of singing, breathing difficulty practice should be used instead of "surprise" practice, and voiced consonants "P, T, K" should be used uncomplicated to make it easier for beginners to master. Cui Shuhui (2016) the shape of the throat, tongue, teeth, and lips should be accurate. If you can't pronounce clearly, the words were ambiguous, and the listener doesn't know the meaning of the words; or if the language was clear, but the meaning was plain and boring, it still can't move people's hearts, so you need to master more singing skills, and master the methods of pronouncing and enunciating comprehensively. For example, the beginning of the word should be accurate, clear, and true; the belly of the word should remain unchanged; the ending should be rhymed and the radio should be clear and in place only by mastering the rules of the combination of words and sounds, dialectically dealing with the relationship between each part, making corresponding changes, and completely showing each word, can the charm of sound be expressed.

For beginners of singing, many people's language pronunciation will have their hometown accent, which was difficult to change in a short time, but we can use some consonants in the combination of language and singing tone to better solve the problem of the inaccurate pronunciation of beginners of singing. Huang Yulin (2019) from the beginning to the completion of the exhalation in singing, all the inspiratory muscles not only cannot relax but also continue to contract to maintain the full state of the chest. When singing, it was necessary to regulate the breathing movement, and finely regulate the breath according to the interpretation of the connotation of vocal music works and the strength of the required sound. Just like turning on the tap in life, if the water demand was small, the switch will turn on small, otherwise, it will turn on large. So, the general trend was that the upward force was greater than the downward force in the confrontation between the upward exhalation force and the downward inhalation force. The control of singing breathing movement needs long-term practice to achieve the purpose of freely and accurately controlling the breath. The researchers believe that although the description of this breathing state was very correct, it not helpful for beginners in singing breathing. What the singer needs were the most basic breathing state and breathing method, not the more difficult anti singing breathing method after the advanced stage.

Recommendations

Research recommendations

1. Singing breathing exercises should be compiled, we should pay attention to the opinions and suggestions of users, understand the needs of the users, gather the views and recommendations of the future users to modify the breathing exercises, and use development research methods to perform experiments to develop breathing exercises in other levels of singing.

Recommendations for use

1. In the teaching course, we should add some interesting interactive content, increase the interest of the participants, and let the students how to increase their enthusiasm for singing breathing practice learning, which can achieve a better course effect.



2. The breath of singing can be said to be the controller of singing and the source of all great songs. It is formed base on "natural breath" through long-term professional training. For singing learners, it was a very long process, so the breathing training of singing beginners is very important, it should add some self-practice content in the article.

3. For the teachers who hope to refer to the researchers' singing breathing practice to engage in singing teaching, my suggestion was; that my practice was suitable for 12-20 years old vocal music beginners. If the students taught by the teacher were less than 8 years old, he needs to pay attention to do more demonstrations, let the students imitate the teacher's voice from practice, and pay attention to ask the students to open their throats, keep breathing position and upper body relaxed.

4. For students, if they use this singing breathing exercise for self-study, they can choose the "Hi" activity, silent breathing exercises, lying breathing activity, "blow candles" exercises. In the process of these four exercises, we should pay attention to relaxing the throat and the body, and experience the correct use of singing breath in the body.

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