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Research Article

The perspective of trainers on the use of imagination in singing training

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Based on how singing teachers and opera singers (teaching singing) apply imagination techniques in singing training, this study examines the use of these techniques in singing training. The data for the study using qualitative research method was collected through semi-structured interviews. A descriptive analysis was performed on the data collected from 18 individuals, including 13 academics and five opera singers. Overall, the study concluded that the following images are used by experts to describe the skills necessary to learn to sing correctly and effectively: adopting an appropriate posture, breathing properly, activating the required reflexes to keep the body aligned and working in balance and coordination, closing the vocal cords properly, opening up the resonance cavities, placing the voice correctly with a precise articulation, work rendition, and dynamics.

Keywords: Imagination; Singing training; Voice; Voice production

1. Introduction

The vocal cords are located in the larynx, a part of the body we cannot see. The training of singing is therefore different from the training of other instruments. This training often involves the use of imagination. However, guidance may differ depending on the culture in which a person grows up, since mental images are constructed based on the differences between cultures. Leppert (2017) explains that images are not dug up like mineral ores, but that they are constructed to function in a specific way in specific sociocultural contexts. Teaching involves stimulating the student's prior knowledge and determining their level of preparedness. Making a connection between the prior knowledge and the knowledge to be learned provides meaningful learning (Tok, 2017). In this sense, the importance of concepts is crucial. People can better understand the concepts they don't know when they are taught on the basis of the ones they already know. Images can be used to teach abstract concepts so that the student can visualize what is being said in their minds. Singing training involves students using an instrument they cannot see in a correct, efficient, and beautiful manner. It is necessary to introduce certain concepts at the beginning of these lessons. It is difficult for both teachers and learners at first to grasp a concept because it is abstract.

The balance between mind and body is crucial to successful singing. In order to achieve the right balance, singers try to connect their imaginations and sensations to the functions of their speech organs (An, 2008). As Carter states (1993), images support all aspects of singing training, performance, and teaching. In many areas, mental images can be valuable in conveying concepts that are difficult to comprehend physically. Teachers can use this to demonstrate how voices are produced. In contrast to instrument training, the singing mechanism is largely invisible, making it hard to demonstrate what is necessary or not. Therefore, similes, metaphors, and imagination must be used by the teacher. Despite its validity as a teaching tool, the use of images can induce addiction when used irrationally and excessively (Averino, 1989; Burtis, 1992, as cited in Carter, 1993). Singing training uses imagination more than just to improve creativity. Due to the lack of direct sensational access to the singing mechanism and larynx (McKinney 1994, as cited in Lillis, 2020), it is beneficial to students to visualize invisible, insensible gestures occurring in their larynxes (and bodies in general).

In singing training classes, abstract lectures are presented, and during these classes, students may be asked to use various examples from their previous experiences and learnings to create visual constructions (images) to help them produce the correct voice (for example, they may be asked to imagine climbing down the stairs while ascending higher in pitch and climbing up the stairs while descending lower in pitch). In addition to his/her actively used muscles, the student uses almost the entire body to produce voices since the singing cords are located in a place we cannot see in the larynx. It is possible to see the movements of the singing cords medically, but the student cannot see their own singing cords. Thus, unlike other instruments, s/he must manage an instrument that cannot be seen, namely his/her voice (Doganyigit & Islim, 2021).

In singing training, the main objective is to gain a sense of functional and motional freedom. Voices are automatically created when speech organs respond to previously trained conceptual images (Reid, 1971). The sense organs play a crucial role in the perception of images that help form the voice in the body. Emotions and memory are highly influenced by sense organs (Yılmaz Davutoğlu, 2015). Therefore, imagination is important for this lesson in order to activate some reflexes to guide the muscles correctly (Phillips, 2011; Winnie, 2014). In various fields of education, images are utilized to contribute to mental and physical preparation of artists and athletes either during training or for the performance of their work in acting (Linklater, 1976; Rodenberg, 1992), dancing (Hanrahan, 1995; Sweigard, 1975), sports (Nideffer, 1976), music (Galvan, 1992), etc.

For students of singing training, implementing what is taught during the lesson is a difficult task, especially at the beginning, so it is crucial to make this lesson easy and understandable, which is built on abstract concepts. As singing teachers gain experience, they acquire idiosyncratic imagination examples. Some teachers give similar images on certain subjects that are associated with successful results in practice. Compiling the opinions of teachers who have been giving this education for years and guiding singing teachers who are just starting their careers is considered important to promote a more healthy educational progress. Hence, the aim of this study was to determine the level of knowledge and opinions of opera singers and singing teachers regarding the importance of imagination in the practice of singing.

2. Method

2.1. Research Design

It was decided to use qualitative research method for this study since it aims to determine the opinions of opera singers who are also singing trainers about the practice of image techniques used in singing training. This method has been used to collect qualitative data concerning singers' opinions about imagination techniques in singing training by trainers. Case study design has been used within the study as it allows the researchers search into a specific case in detail (Yin, 2018).

2.2. Sample Group

The sample group of the research consists of experienced and volunteer educators and artists who have served in the field of singing training and performance. While creating the sample group, educators, academicians, and artists working in the field of singing training and opera have been selected to reflect the phenomenon under research better and to reveal the richness of experience. Thus, a kind of purposeful sampling has also been carried out. Maximum variation has been given importance in the sample group, and an attempt has been made to reach experienced singing trainers.

Sample group consists of 18 people, 13 of whom are academicians and 5 of whom are opera singers, who work in the field of singing training and have voluntarily participated in the research. Out of the academicians and artist coaches, 10 are female and 8 are male.

2.3. Data Collection

In order to thoroughly examine expert opinions about the use of imagination techniques in singing training, the researchers developed a semi-structured interview form consisting of 12 themes and 12 open-ended questions. To ensure content validity, three experts in singing training were asked for their opinions on the agreed themes and a draft interview form was prepared. The interview form has been finalized after making the corrections suggested by the experts regarding themes and question wording.

This research was conducted in 2020 from April to October, after primarily informing the singing training experts who have volunteered to participate. In the semistructured interview, 16 participants responded in writing. Two respondents sent voice recordings in addition to their written responses. The participants were asked to approve the transcriptions after the recordings had been transcribing. Based on the answers given to the semistructured interview prepared according to the themes, two experts in the field decided on the codes.

2.4. Data Analysis

Transcriptions of the voice recordings obtained during the research have been carried out. Following this, they were exposed to units of meaning, agreements, and shared expressions emerging in the participants' expressions. The objective of descriptive analysis is to gather similar data and organize and interpret them apprehensibly using specific codes and concepts. In accordance with the specified codes, imagination techniques used in singing training and obtained through interviews have been analyzed. A pseudonym was used when the data were presented (Yıldırım & Şimşek, 2013).

After findings and outcomes have been obtained, the opinions of the participants have been categorised, analysed, and interpreted. As part of protecting participants' privacy, the interviewer assigned nicknames P1-P18 to the participants before analyzing the data.

2.5. Validity and Reliability

A participant confirmation procedure was used in order to determine the validity and reliability of the research. Expert opinion is another way to increase validity in qualitative research. It is expected that peer review process and feedback from experts in the subject and method of the study will increase the validity of the study (Merriam, 2009). Themes and codes derived from the data obtained under this research have been sent to two experts in the field for feedback on whether they can be formed from the same data set or not. For the sake of the reliability of the research, reliability formula has been utilised proposed by Miles and Huberman (1994) [Reliability = Consensus / (Consensus + Dissensus)]. Second expert's feedback indicates a consensus of 85.29% in accordance with his opinion. Research reliability can be determined by this resulting rate. Research is considered reliable if the reliability calculation exceeds 70% (Miles & Huberman, 1994). Based on the current results, the research has been deemed reliable. Since the consensus has ensued as 100% in some interview questions and there has been no differentiation,

intraclass correlation has not been calculated. For this reason, consensus percentage has been solely reported to determine the correspondence between experts.

When consensus percentage calculated for twelve interview questions is examined, it has been found that 100% consensus rate has been reached for 1st, 5th and 12th, interview questions; 94% for 7th, 8th, and 11th interview questions; 89% for 3rd, 4th, 6th, and 10th interview questions; and 83% for 2nd and 9th interview questions. Therefore, high correspondence between coders has been observed in the codes performed for all interview questions. Afterwards, researchers have come together and discussed on the codes on which no consensus could be reached, and finally 100% consensus has been reached for the 6th, 7th, 8th, and 9th interview questions. Consensus has increased to 94% for the 2nd and 3rd interview questions. Consensus percentage for the 4th and 10th interview questions stayed the same. While interpreting the findings, the code assigned by the experienced researcher has been taken into account in case of dissensus.

3. Findings

According to the findings obtained from the study, four categories have been emerged for using images in singing training: (i) usefulness, (ii) careful use, (iii) usage rate, and (iv) positive and negative aspects. Furthermore, two categories for body control ((i) bodily awareness and correct posture, (ii) correct breathing, holding and exhalation) and six categories for using voice ((i) resonance, (ii) articulation, (iii) comment, (iv) nuance, (v) descending passages, and (vi) ascending passages) have come into the picture. Table 1 presents the themes and categories.

Table 1
Themes and categories for using images in singing training

Themes	Categories
Using images	Usefulness
	Careful use
	Usage rate
	Positive and negative aspects
Body control	Bodily awareness and correct posture
	Correct breathing, holding and exhalation
Using voice	Resonance
	Articulation
	Comment
	Nuance
	Descending passages
	Ascending passages

3.1. Place and Importance of Using Images in Singing Training

According to the experts, there are four categories for using images in singing training. (1) benefit of imagination technique, (2) points to take into consideration for using imagination, (3) the rate of using images, (4) positive aspects of using images and negative aspects of using images. Table 2 presents the categories and codes regarding this theme.

Experts have agreed that it is beneficial to use images. The greatest impact of image use is concretizing singing training based on abstract expressions. Since singing training is completely inward-oriented, training the muscles that the individual cannot see in his or her body is the most difficult part of this process. As they facilitate muscle management and thus correct and effective use of the voice thanks to their stimulating effect on the body, the images in a person's mind are

Table 2
Categories and codes for using images in singing training

Categories	Codes
Benefit of imagination technique	Concretizing the abstract
	Facilitating
	Necessary
	Important
Points to take into consideration for using imagination	Avoiding complex expressions
	Using concrete and clear expressions
	Avoiding extreme examples
	Not insisting on the unclear example
	Diversifying the examples depending on the student
	Moderate use
	Target, clear idea, concentration
Rate of using images	Always
	When needed
	In half
	Depending on the student
Positive aspects of using images	A quick method
	Facilitating
	Catchy
	Concrete
	Effective and timesaving
	Confidence-boosting and encouraging
Negative aspects of using images	Changing from person to person
	Severe vocal problems when misapplied and misunderstood
	Causing failure, despair, and negative attitude
	Considering it real

absolutely necessary and important. This situation has been expressed by P2 as follows:

> Since singing training passes through a completely inward-oriented system, I think it is inevitable for imagination. We, as singers, train our voices without seeing but feeling the muscle groups. We don't have so many physical data even in front of the mirror; that's why, it is quite important to improve the subject using imaginations.

Experts recommend using non-complex, concrete, and clear expressions and avoiding extreme examples that the student has not experienced before. Non-concrete and complicated examples may confuse the student, and as a result, cause despair. In addition, it is essential to diversify the examples depending on the person as each student is equipped with distinctive characteristics. Insisting on the unclear examples may cause obsession. Attempting to comprehend non-concrete expressions while coordinating multiple muscle groups may result in the student losing coordination. The following is how P7 described this situation:

> If attention is paid to utilizing concrete situations by trying to benefit from the natural reflexes of the body as much as possible, in addition to this, using the expressions that do not have any second or third meanings and will be clearly understood when first said, without causing any confusion for the student, I think it will be much more efficient and useful (P7).

Some of the experts have stated that image always needs to be used in the lessons while some of them have stated that it should be used frequently until a common language develops between the singing teacher and the student, and in the following year, it should be used at the same rate when needed blending it with anatomical and phonetic knowledge. However, some experts state that it is a more convenient approach to determine this rate depending on the characteristics of the

student. In this sense, P4 asserted that "I think there is no harm in using imagination too much." In a similar manner, P5 stated that:

> This varies for each student. How much and how long the student needs imagination is determined by the expert teacher. I don't think there's any amount for that. It should be evaluated separately for each of them, and the explanation should be evaluated separately for each individual (P5).

If explained correctly, the use of images in singing training shows quite positive results. Its positive effects are saving time, facilitating the process, being catchy and concrete when the students are in the process of gaining technical skills. Thanks to these features, it is considered an important method to boost the students' confidence and encourage them. This situation has been expressed by P8 as "It has so many positive aspects, and I don't think it has any negative aspects as long as it is explained correctly."

However, it is quite important this training be performed by competent people in the field. When the student misunderstands and misapplies it, it may create severe vocal problems. Since incorrect voice production will create feeling of failure, it may also cause the student to develop a negative attitude towards the lesson making him or her to feel desperate. Therefore, teacher's experience and competency are quite important to respond to the wrong practice in a timely manner and reorganize the lesson plan for the student without insisting on the same example. P10 asserted that, "I think the negative aspect, again, varies from person to person. It is an internal representation of our experiences and fantasies. It may not be OK to exaggerate the representation."

3.2. Using Images for Body Control in Singing Training

According to the experts, there are two categories of images for body control in singing training. (1) bodily awareness and correct posture, and (2) inhaling, holding, and exhaling breath correctly. Table 3 presents the categories and codes regarding this theme.

Table 3
Images for body control in singing training

Categories	Codes
Body awareness and correct posture	Puppet, rag doll
	Imitation
	Being ready for the action
	Stance of a king, queen, or princess
	Having roots and branches like a tree
	Reverse C on the back (standing like holding a Pilates ball)
	Being in an oblique position like a sunflower
	Thinking of the head being on the 3rd floor and the body on the 1st floor if we are on the second floor of the building
Inhaling, holding, and exhaling breath correctly	Tired dog imitation
	Balloon
	Bellow, piston, U-cup
	A ping pong ball on pressurized water
	Accordion
	Smelling a flower
	Yawning while breathing in and standing still while breathing out
	Rope or a straight line
	Pulling hair out of butter

A few images are used in singing training to improve posture and body awareness. Body awareness and correct posture are quite important in singing training as they affect using breath and voice. It would be right if the neck gets longer while feeling the upper body pulled up with a rope like a puppet, the head is in an oblique position like a sunflower or having an upright and

confident posture like a king, queen, or princess to feel the same posture. In this sense, P3 stated that, "You can create images for any topic. This depends on the teacher's imagination and the student's situation. We can ask him or her to imagine a rope over his or her head and being pulled up by it." Lower body always being ready and alert for the action, P10 expresses "Feet clinging to the centre of the earth, for example, standing at the crosswalk as if waiting for the green light to go." Feet being on the firm ground and thinking of having roots like a tree can be given as examples to a correct body posture.

Some images are used in singing training related to inhaling, holding, and exhaling breath correctly. Breath support is one of these points in singing training. Inhaled breath should be exhaled in a balanced manner and used as required. It is quite important at this point to hold the breath inhaled deeply to sing above the breath. While breathing in, expanding like smelling a flower or blowing up a balloon, opening the body like an accordion or thinking of a bellow are the expressions that facilitate to breathe in deeper and in a desired way. Similarly, imagining that the inhaled breath remains in its previous place, hair is pulled out of the butter, ping pong ball remains over the pressurized water of an ornamental pool without falling down, rope or a straight line are examples given to hold the breath and facilitate to exhale the breath in a balanced way. In this manner, P8 asserted that, "I often liken diaphragm to a balloon for my students. As for the lips of the balloon, I liken it to the place where the breath is held, this imagination has been greatly beneficial for my students."

3.3. Using Images for Using Voice in Singing Training

According to the experts, there are six categories of images for using voice in singing training: (1) resonance; (2) articulation; (3) rendition; (4) nuance; (5) descending passages; and (6) ascending passages. Table 4 presents the categories and codes regarding this theme.

Table 4
Images for using voice in singing training

Categories	Codes
Resonance	Speaker, monitor, microphone, tweeter in speaker
	Egg on the tongue
	Thinking of the vocals inside the cheeks
	Cave, ceiling, parachute
	Cavity
	Yawning with a close mouth, humming, buzzing
	Exclamation of surprise
	Mask
Articulation	Listening to the work in its original language
	Speaking naturally
	Using the articulators elegantly, decisively, like patting the voice, without crushing, beating, breaking them, and disrupting the voice flow
	Biting an apple, feeling the relaxation in the mouth and throat muscles, comfort
	Thinking of the words on a line that provides brightness and roundness in the same colour and position
	Feeling of nothingness
	Singing the way you speak
	Exaggerating vowels and consonants

Table 4 continued

Categories	Codes
Rendition	Spinning wheel
	Bond and line
	Being ready for the role
	Establishing a bond between singer and composer
	Visualizing meaning of the lyrics and story of the work in the mind
Nuance	A long unbreakable string
	Infinity
	Continuous flow
	Hair queue
	A straight line or chain
	Pearls on a string
	Thinking of a bond
	Taking the voice out of the mouth like a string and extending it to
	The audience
	Thinking of the breath as circular, thinking of the echo
	Water pouring from the faucet like a thin string
	Threading the needle
	Silent scream
	Hammering
	Making the river flow
	Like a feather
	Extending the note value indefinitely
Descending passages	Climbing up the stairs
	Thinking of the top when the sentence (gamut) goes down (pretending to make a high-pitched voice
	Upward movement of the seesaw
	Piston
	A straight line
	Hanging the laundry
	Thinking of the voice as a string
	Getting off the floor while the voice goes down
	Thinking of the voice over the head
	Hanging the laundry
Ascending passages	Climbing down the stairs (thinking of climbing down the stairs)
	Thinking of descending and straight passage
	Downward movement of the seesaw
	Thinking of the bottom while the sentence goes down
	Body weight going down in the elevator
	Dome
	Thinking of descending low-pitched tones
	Thinking of throwing the voice to the centre of the earth
	Crouching down while practice goes up
	Thinking of a string connected from the top to the bottom

Using resonance areas in singing training adds color to the voice, according to experts. Since timbre and quality of the voice is also affected when the resonance cavity is open, it is necessary to open the cavity and give examples to improve the high and front timbre of the voice. Imageries such as speaker, monitor, microphone, tweeter in speaker, thinking of the vocals in both cheeks, humming, bee buzzing, placing the voice in the mask are the examples that help to direct the voice forward. Egg on the tongue, cave, ceiling, parachute, cavity, yawning with a closed mouth, exclamation of surprise are examples given to open the resonance cavity and move the voice

upward. First of all, this cavity must be open for the voice to be up and in the front. This situation has been expressed by P1 as follows:

> Here are what come to my mind: suggesting a pigeon egg on the tongue, (to prevent the tongue from swelling and create a wider resonance cavity), practice of creating resonance timbres in different areas in the head by closing the mouth without breaking the egg (P1).

Generally, singing training involves some technical exercises to improve articulation, according to experts. However, some imagination examples are also considered important for correct articulation. First of all, articulation happens in a more balanced way without disrupting voice flow when the muscles in vocal tract are relaxed. This situation has been expressed by P9 as follows: "It is necessary to feel that all the mouth and throat muscles are relaxed like meditating in the mind so that the person can perform the articulation in a productive way only thanks to lips, tongue, and chin (chin needs to be extremely relaxed) without forcing the muscles." For this, it is necessary to speak naturally or sing as you speak, feel a kind of sense of nothingness, and articulate words in the same color and position, with exaggeration, on a line that provides brightness and roundness. The following is how P7 expressed this situation:

> Actually, we create images in the mind with the expressions that we use. If the feelings in our expressions pass to the other person, it means that imagination is active. The emotions will kick in thanks to the images created in the student's mind with whom the teacher practice by the suggestions and warnings like articulators need to be very elegant and decisive, their behaviors need to be shaped like patting the voice, without crushing, beating, or breaking it, and disrupting the voice flow; and this will be felt and experienced (P7).

Imagery can be used effectively in singing training to render the effect, according to experts. First of all, it is necessary to know such issues as well as dynamics of the work, characteristics of the era, and its story. Not to break the legato line in the works, the student can be made to imagine a spinning wheel. Another crucial point is that singer should try to understand the composer and be ready for the role connecting himself or herself with both the composer and the characteristics of the work. P5 expressed that:

> First of all, I tell my own rendition and opinion on the work. It tells what the composer has wanted to convey to me and how I have performed them. After saying what the work means to me, I help my student find his or her own rendition. I only mediate. But I never tell them you should do like that there, and like this here, this is a bond that needs to be established between the singer and composer. I only mediate to establish this bond (P5).

In singing training, experts suggest using some images to perform nuances. It is important to produce the voice in the same colour and place most of the time when performing nuance. A legato performance is the first of these. Examples of effective imaginations to perform legato include: an uninterrupted breath support, pronunciation of the consonants at the end, a hair queue, a straight line, chain, pearls on a string, thinking of a bond. In P11's words, this situation is expressed as, "I always give examples of pearls on a string for legato. If there is no string, each of the pearls shatter somewhere. For the nuances, examples can be given depending on the student's inner world."

In singing training, some images are used to support the use of the voice in the correct place and effectively in descending passages. In singing training, it gets increasingly difficult to control the voice and keep it up while performing low-pitched register. Therefore, concentration on the reverse movement in the body facilitates the production of these sounds. Some of the examples are thinking of climbing up the stairs while the gamut goes down, seesaw going up, or producing a high-pitched sound. Consequently, it is necessary to think of the movement upward. In this sense, P6 stated that, "I can explain the image that I use here like that: I ask the student to image himself of herself climbing up the high-pitched notes in the descending passages".

In ascending passages, experts recommend using images to support proper voice use. It is quite difficult early in the training to produce voice in ascending passages. Adjusting the breath support, opening the resonance cavity, and focusing on the reverse movement to place the voice to an

upper position facilitate to produce the voice. Some of the examples are thinking of climbing down the stairs, going down (like descending low-pitched tones) while the sentence goes up. Consequently, it is necessary to think of the moment downward. P14 stated that, "In ascending exercises, students can be made to think of going down focusing on the reverse movement."

4. Discussion and Conclusion

Based on the expert opinions, it has been concluded in general that the following images are used by the experts as technical skills necessary for singing correctly and effectively: after gaining a proper body posture and breath support, activating the required reflexes to keep the body working in balance and coordination, opening the resonance cavities, locating the voice up and above with an accurate articulation, work rendition, and dynamics. Study results indicate that the use of images in singing training is beneficial and important to overcome some technical difficulties. Many researchers (Davis, 2017; Davran, 1997; Phillips, 2011; Winnie, 2014) have stated that the vocal cords that we use to produce voice are difficult to manage since they are located in the larynx, a part of our body that we cannot see. The importance of the use of image and sense organs in voice production has been highlighted by Yılmaz Davutoglu (2015). Further, Linklater (2006) and Sabar (2008) emphasised that certain reflexes must be triggered in order to facilitate correct voice production. Since we cannot directly understand the "working parts" of the voice mechanism, imagination must be used in singing, according to Michael (2010). According to An (2008), when understanding the voice mechanism in its correct context, imagination and sensation play an important role in developing new techniques.

It has been extensively discussed the benefits of mental images in singing training, but many singing teachers find that they are effective. The singers can also benefit from this approach and acquire the image verbally which they have already perceived mentally by using this approach. In relation to the use of image in singing training, experts usually focus on such matters as posture, breath support, body opening, correct closure of vocal cords, opening of the larynx and soft palate, articulation, difficulties with high and low notes, and tonal transitions. It is recommended to avoid complex expressions that may cause confusion when using imagination in singing training, use concrete and clear expressions, avoid extreme examples, diversify the examples based on the student and piece, and to focus on the target, clear idea, and concentration. In order to teach singing, it is important for a teacher to understand the difference between image and physiological reality, according to Freed (2000), who says the related image is meant to reinforce a physiological principle.

For the question of how much image should be used in the study, some experts stated that it should be used at every step. Others have stated that it should be modified according to the student, and others have stated that it must be used frequently in the first years of education and as needed in the following years. It is impossible to train in singing without imagination, even for the most basic scale patterns, according to Reid (1983, as cited in An, 2008). After the concepts are understood, the researcher has stated that the use of images will no longer be a crucial factor in voice production after the student's ability to respond improves and physical obstacles are overcome. Based on the expert opinions regarding positive and negative aspects of the use of imagination in singing training, it has been concluded that as long as it is correctly explained, most of the time, it has so many positive sides. It is a facilitative, fast, catchy, concrete, confidence-boosting and encouraging and effective method until the student reaches a certain technical level. On the other hand, it changes from person to person and misapplications may cause voice damage, it may develop failure, despair, and negative attitude, and it is considered real. According to Ware (2013), images are used during initial practices while improving technical coordination. However, due to individual differences, using images can be misleading among students. It is possible for a student to interpret or apply an image in a way that is misunderstood or misinterpreted by another student. Consequently, the student's voice health may be at risk (Lillis, 2020). There is almost no tangible aspect to singing training constructed on abstract concepts, according to Davran

(1997), Phillips (2011), and Yurdakul (2000), even if the same method is employed. As students perceive and apply abstract concepts and examples given during the perception and application stage, they rely on the connotations and concepts evoked in their own images to interpret and apply them. Therefore, some students can develop desired behavior while others may not. McKinney (1994, as cited in Bowes, 2009) states that failure can lead to students believing they are unqualified and untalented, and they may experience anxiety, despair, and mental disorders as a result of this situation. Singing requires the ability to think correctly, interpret the music, and release emotions in the right manner in order to produce the right mental images in the desired tone.

The experts who have emphasized the importance of physical exercises for body awareness and proper posture have given some examples supporting a confident and dynamic posture. These examples include imagining a string being pulled upwards over the head, the back of the neck being long and ready for the action, the stance of king, queen or princess, the feet being on firm ground, but the body stretching upwards, having branches and roots like a tree, reverse C on the back, like holding a Pilates ball, a facial expression of surprise, thinking of the head being on the 3rd floor and the body on the 1st floor if we are on the second floor, standing in an oblique position like a sunflower while the head is looking across, and reaching the apple. According to Brünner (1993, as cited in Moorcroft, 2007), posture is associated with images of directional contrasts over the head and under the feet. Although he warns against stiffening the posture, there should not be any collapse in the back and neck areas. The spine must be stretched upward like a tree and it must breathe like it is being pulled downward by deep and wide tree roots, and to feel it in the tone. In other words, the head must rise, the back must stretch and expand.

When talking about proper and effective singing, experts emphasize the importance of proper inhalation, holding, and exhalation by using such images as the necessity of singing over the breath, imagining the diaphragm as a balloon, bellow, piston, U-cup, floating ping pong ball in a pond above the water, opening the body like an accordion, breathing deeply like smelling a favorite fragrance, feeling that the stretched diaphragm remains in its previous position, and thinking of legato. According to McKinney (1994, as cited in Bowes, 2009), breathing is like smelling a rose, starting to yawn, or drinking water. Experts who emphasize that especially intraoral cavities need to be open for better resonance have cited images such as speaker, monitor, microphone, tweeter in the speaker, pigeon egg in the mouth, thinking about the singing in the volume of the face, cave, ceiling, parachute, warm air, biting an apple, yawning with a closed mouth, bee buzzing, and exclamation of surprise, etc. To improve resonance, Stark (1999, as cited in Moorcroft, 2007) suggests concentrating the voice in a particular direction. As Yurisich (2000) emphasizes, sending your air and voice up to the top of your head helps to create a beautiful tone and improve the resonance of your voice. A similar image has been described as being used by Patenaude-Yarnell (2003) to balance buccopharyngeal resonators and of providing throat opening. Mental imagination has been widely cited in singing pedagogy by Morrison and Rammage (1994, as cited in An, 2008) as a means of establishing a technical control over a voice. The vibration and resonance systems of the voice are described in terms such as "concentration", "placement", and "head voice".

As far as technical studies are concerned, experts who assert that they perform them more for proper articulation have stated that they perform them for relaxation and flexibility of the throat and chin, as well as tongue and lip exercises, while experts have mentioned using images such as exaggerating vowels and consonants, relaxing thoughts that don't break the flow of the voice, biting an apple, feeling nothingness around the tonsils. According to some experts who emphasize legato as an important component of rendering the works, the use of images is very effective depending on the work's characteristics, while the majority of experts assert that in order to succeed in the role, it is essential to understand the work's characteristics, lyrics, dynamics, and story, and establish a bond with the composer. For singigists' expression and artistic performance,

some researchers have emphasized the importance of kinaesthetic, auditory, and visual imagery (e.g. Bellon, 2006; Carter, 1993; Emmons & Thomas, 2008).

The majority of the experts who have emphasised the importance of legato in the use of image for nuance characteristics of the works has stated that they use such images as a long unbreakable string, extending the note value indefinitely, pronouncing the consonant in the end after extending the vowels, a continuous flow, a hair queue, a straight line or chain, the pearls on a string, maintaining the voice at the same quality, thinking of the bond, taking the voice out of the mouth like a string and extending it to the audience, etc. Many experts have stressed the importance of reserve movements for descending and ascending passages. Among the images they have used are climbing up the stairs, thinking upward, thinking about climbing up the stairs while the note is descending, climbing down the stairs in ascending passages, thinking about climbing down the stairs during the ascending passages, the lift moving downward, thinking about climbing down the stairs while the note is going up, the movement of the body going downward. In their study in which they have examined the effect of virtual reality on singing training, Doganyigit and Islim (2021) had their students watch two works featuring passages that go up and down. In a virtual environment, they have asked students to sing while moving downward in high-pitched passages of the work and up in low-pitched passages of the work. Observations have shown that participants are capable of producing voice in both high passages and low passages with ease. It has been suggested by Patenaude-Yarnell (2003) that the sense of directing the voice and breath upwards and downwards simultaneously should be perceived with low breath pressure in the body. As a matter of fact, the entire singing mechanism seems to be longer. Singers are able to better perceive the length of the entire singing mechanism by looking at images that are vertically oriented. A singer can also stabilise their throat by conceptualizing the voice at both a high and low level (Patenaude-Yarnell, 2003). The slope in high-pitched notes always lies slowly towards the back of the top of the head, according to some researchers (e.g. Lehmann, 1922 as cited in Moorcroft, 2007; Herbert-Caesari, 1951; Puritz, 1956; Patenaude-Yarnell, 2003), while others suggest using a spectral slope to produce a brighter voice in high-pitched notes (e.g. Westerman & Miranda, 2002).

In conclusion, phonologists recognize that mental imaginations make a significant contribution to the improvement of voice and mental imaginations affecting involuntary muscles and causing the body to produce a healthy and even voice. However, many people argue that the singers must understand physiological reality since the use of images is based on the scientific knowledge of the singing mechanism (An, 2008). Similarly, in the study, the experts have pointed out that the use of image is not the only method in singing training. However, they highlight that it is an important and frequently used method when conceptualizing the lesson at the beginning, due to its facilitative nature and timesaving capabilities, as well as the potential for voice damage caused by differences between individuals and incorrect practices.

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