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## **Module 5**

BMPF7074D: Independent Study Module (Extended)

“Cross-training emerging singers through Meisner-inspired approaches: an exploratory practice-based study”

**Word count: 8101**

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## Component 1

**Wordcount: 1581**

### Introduction

Cross-training is a growing pedagogy that has sparked my interest in the past few years due to its potential to train versatile and healthy voices (Wilson, 2021; Michael, 2024). As someone working daily with mostly inexperienced adolescent singers, I find cross-training advantageous for promoting healthy vocal habits in them. I also believe it nurtures the many possibilities provided by their entire instrument, supporting both their development and longer-term motivation. However, like many vocal technique approaches, cross-training can be perceived as highly technical and uncomfortable for inexperienced singers, as well as overly repetitive (Silva, 2022), difficulties I have witnessed regularly in my practice. Possibly for this reason, in their book on cross-training, Spivey and Saunders-Barton (2018) allude to teachers needing to find creative ways to get the sounds they want from students without being too descriptive or modelling too much.

As a growing body of literature currently calls for voice pedagogues to avoid such pitfalls by focusing on sound outcomes or external cues to produce them, for example, via acting through song tools (Treinkman, 2022b; Robertson, 2025), I am undertaking an exploratory study aimed at creating a cross-training teaching resource grounded in acting. Due to being a Meisner-trained actor who is deeply passionate about this technique, I am exploring how its principles of spontaneity and connection under imaginary circumstances could aid vocal cross-training. Due to the narrow scope of this paper, explorations will be limited to two contrasting timbres on the upper range of singers of all genders.

### Planned Programme of Study

#### Theoretical influences

Although literature shows cross-training as a somewhat novel concept, techniques with the potential to train singers to produce a variety of sounds have been around for decades, such as Estill Voice Technique (EVT) or Complete Vocal Technique (CVT) (Acceta, 2022; Moniz, 2023; Ford, 2023). However, recent explorations on the topic seek to empower teachers to discover their own approaches to cross-training without subscribing to an existing model.

Parallel to this, expanding motor learning research has found External Focus of Attention (EFOA) to improve skills' acquisition due to its emphasis on the outcome of the sound, rather than the intentional manipulation of muscles (Wulf, 2016; Brand, 2021). Many interesting evidence-based ways to implement EFOA in singing lessons have been analysed, like

imagination, movement, or copying day-to-day activities (Helding, 2015; Brand, 2021; Treinkman, 2022b). Additionally, Robertson (2025) has suggested that EFOA could be powered by integrating acting and singing, something I am interested in exploring due to my training and experience as an actor.

While there is a myriad of acting techniques that could be used, Helding's (2016) apparently deprecating allusion to EFOA's "antiintellectualism" (p. 622) echoes Sanford Meisner's Acting Technique (Meisner and Longwell, 1987), which rejects intellectual "mental manipulation" and aims to "get to where the impulses come from" (p. 36). For this reason, I intend to explore how Meisner's principles of spontaneity and connection could make singing, and specifically cross-training, more accessible for emerging singers.

### Best Practice influences

Spivey and Saunders- Barton's (2018) book stands out within cross-training literature as a comprehensive and accessible guide to these practices. In it, speech-inspired exercises and suggested repertoire are outlined to help young singers train contrasting sound qualities. Similarly, Rosenberg and LeBorgne (2019) compiled a comprehensive selection of exercises from different authors to train versatile singers. These books, due to their careful curation and practice-based foundations, are bound to significantly influence the creation of my own teaching resource.

Moreover, it is particularly relevant that Spivey and Saunders- Barton (2018) encourage teachers to find creative ways to cross-train their singers without much verbal explanation, which I interpret as a clear nod towards EFOA. To the best of my knowledge, no one came closer than Treinkman to outlining how this could be applied in singing lessons. In her 2022a article, Treinkman surveyed 278 singers about instructions they received from their vocal teachers. Directives were categorised according to whether they were externally-focused, internally-focused, or miscellaneous. Later, Treinkman (2022b) wrote a follow-up article analysing in detail some of the EFOA instructions she received in her survey and compared them with approaches from other researchers and practitioners. In my opinion, these two articles are, along with Robertson's (2025) exploration on EFOA and acting, a turning point in this field of research and its application in the voice studio, having already informed and influenced my own practice. For this reason, they will be central in further informing my artefact.

### Aims

- Improve my approach to integrating technical singing and acting in my practice
- Employ Practice as Research (PaR) to create an artefact

- Create a Meisner-based teaching resource to cross-train emerging singers

### Objectives

- Undertake a search for literature related to cross-training, voice acoustics, EFOA, and acting in peer-reviewed journals dedicated to voice science, as well as books written by leading practitioners. Synthesised information will inform how the artefact's exercises are designed, and contribute to a more evidence-based resource
- Collect existing vocal exercises to adapt or use as inspiration to create my own for the teaching resource
- Read Nelson's (2022) PaR framework and use it to facilitate the iterative process of the artefact creation
- Evaluate how the resource might perform in practice, to help me further enhance my approach to integrating technical singing and acting

### Expected Learning Outcomes (LO)

LO1: Increase my understanding of cross-training and its application, using acting as an EFOA tool

LO2: Become more well-informed about voice acoustics and how to use its principles in tandem with EFOA

LO3: Experience an iterative process that leads to the creation of a usable resource

### Assessment criteria for artefact

- In what ways does it demonstrate understanding and integration of motor learning science, acting, and cross-training literature?
- To what extent does my artefact embody principles of spontaneity and connection?
- What could its practical impact be in a real teaching scenario?
- How did the methodological approaches influence both the artefact's iterative development and the report?

### Timescales and review dates

The GANTT chart below (Figure 1) outlines key objectives for this project, including dates to evaluate progress. This is to ensure its overall organisation and completion within the allocated time (Grix, 2001).

**Figure 1:** GANTT chart

|                          | July | August | September | October | November |
|--------------------------|------|--------|-----------|---------|----------|
| Choose and refine topic  |      |        |           |         |          |
| Develop research design  |      |        |           |         |          |
| Choose artefact type     |      |        |           |         |          |
| Write Project Portfolio  |      |        |           |         |          |
| Review progress          |      |        |           |         |          |
| Read relevant literature |      |        |           |         |          |
| Design artefact          |      |        |           |         |          |
| Write Project Report     |      |        |           |         |          |
| Write Reflection         |      |        |           |         |          |
| Finish and submit draft  |      |        |           |         |          |
| Work on draft feedback   |      |        |           |         |          |

## Methodology

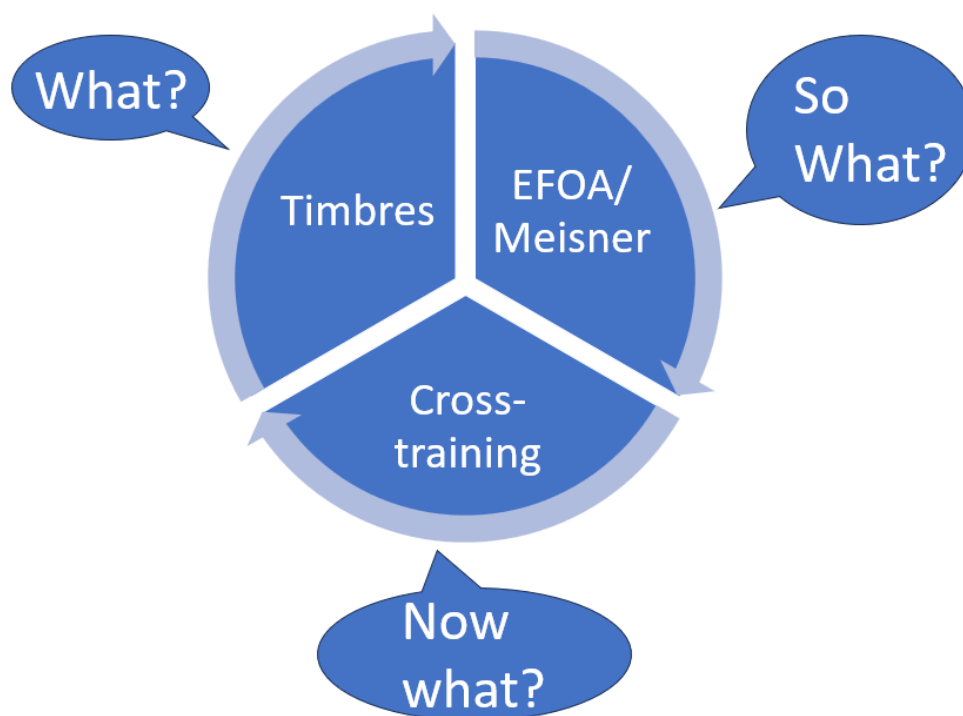
This is a deductive exploratory study seeking new insights into an underexplored area of research (Jaeger and Halliday, 1998). As this type of study necessitates flexibility and adaptability, rather than rigid procedural frameworks (Haile, 2023), a pragmatic paradigm valuing all possible strategies and viewpoints useful to link theory and practice seems most appropriate (Winter, 2021). This is especially true when we consider the mixture of scientific and artistic themes to be covered and tentatively combined through transdisciplinarity (Hansen, 2024), leading me to decide that a strictly constructivist or positivist stance would risk limiting the potential of a project that requires flexibility and open-mindedness (Martin, 2018).

As this paper intends to produce an artefact through practice-based research (Candy and Edmonds, 2018), Nelson's (2022) PaR will be adopted, as it has been hailed as an effective framework to integrate theoretical knowledge and practical outcomes, including in voice research (Oram, 2015). Nelson's taxonomy will support the iterative creation of the artefact and help structure the paper into three discrete sections: the propositional knowledge and theoretical underpinnings informing the resource's development (Know That), the demonstration of how that knowledge is put into practice in the artefact (Know How), and the evaluation of the final result and its implications (Know What). In fact, Nelson's taxonomy will produce a symbiosis between methodology and paper contents, as explicit knowledge (i.e. physiological and acoustic principles) will seek to inform implicit learning (EFOA), as Holding (2015) proposes. In other words, theoretical principles (Know That) will be used to generate a learning resource pursuing practical and implicit outcomes in learners (Know How), hoping

to answer Holding's (2015) question: "How can we harness advances in voice science (know-that) and transfer such knowledge to the voices of our students (know-how)?" (p. 88).

Throughout the paper, Nelson's taxonomy will be supported by Thematic Analysis (Braun and Clarke, 2006) to aid the review of the literature and overall structure, while Borton's (1970) reflective cycle will underpin the more evaluative Know What section. The latter shall also encompass the cyclical chronology grounding this project, where contrasting timbres are the starting point, to be developed through EFOA and acting, aiming to ultimately achieve cross-training (Figure 2).

**Figure 2:** Borton's reflective cycle within this study



Literature to inform this paper will be searched in UWTSD's library and Google Scholar, using the following keywords:

- Cross-training AND singing
- Focus of attention AND singing
- Meisner AND singing

Further selection of literature will occur by backward and, mainly, forward-chaining of the articles initially found, to attempt to gather the most up-to-date research that may not be easily identifiable through the keywords outlined above. Due to the novelty of cross-training, as well as the need to gather current voice science research, the chosen literature will be mostly limited to publications from 2010 onwards. The exception to this rule will be acting

literature, as relevant texts have been written as early as the 1970s, making an expansion in the date range necessary.

While efforts shall be made to engage with as much peer-reviewed literature as possible, particularly where Motor Learning and Voice Acoustics are concerned, such texts about cross-training and acting are still relatively scarce. Therefore, as books are highly reliable sources of information (Adams, Smart and Huff, 2017), those written by or with contributions from reputable researchers and practitioners will be analysed and inspire the creation of the teaching resource.

## Component 2

**Word Count: 6520**

### Introduction

In the 21<sup>st</sup> century, it has become increasingly expected of singers, particularly those in the Musical Theatre (MT) industry, to be 'all-rounders', capable of mastering different disciplines and singing genres (Bartlett, 2020; Silva, 2022), and voice pedagogy has been seeking to adjust itself. For many, cross-training has become the answer to nurturing performers who can sing safely in many styles and across their whole range (Michael, 2024). It differs from crossover singing (when performers specialising in one music genre sing in a different one without changing timbre) by focusing on the sports-based principle that, for greater efficiency and health, all muscles should be trained, not only those we need most (Spivey and Saunders-Barton, 2018; Jiang, 2024).

Following the methodologies outlined in Component 1, this project seeks to generate a teaching resource to help me train singers in the register known as head voice for women, or falsetto for men. As I prefer to view voice pedagogy as gender-neutrally as possible, throughout this paper I will refer to this register as Mode 2 (M2), a similarly accepted term (Michael, 2024). M2 was chosen because it is the register my students usually seem most reluctant to explore and develop, as it feels less natural to them. The resource will be aimed at cross-training two distinct timbres within M2: Covered singing (used in Western Classical music or legit MT) and Mix-belt (often present in MT and Contemporary Commercial Music, henceforth referred to as CCM). While there are multiple ways M2 could be used, I believe these two timbres to be contrasting and relevant enough for my practice as an MT and CCM teacher. Finally, EFOA and acting, particularly Meisner's principles of connection and spontaneity, will underpin a set of vocal exercises dedicated to each timbre. It is hoped that this resource will assist me in avoiding lengthy anatomical or conceptual explanations that may be difficult for young or inexperienced singers to comprehend.

The first section of the paper will therefore explore my propositional knowledge by thematically analysing the literature on two intertwining themes that shall also represent the two main stages of development of my artefact: Intended timbres and EFOA/acting. Following that, I shall document how that propositional knowledge directly underpins my exercises and, finally, an evaluative section will assess the resulting resource, its implications, and to what extent its creation was successful.

## Know That

### Intended timbres

Historically, M2 has been associated with female classical singers, to be used across their range (Bourne, Garnier and Kenny, 2011; Kayes and Welch, 2017). In recent decades, it has become increasingly present in CCM and MT for singers of all genders, particularly to allow them to access their high belt, a vocal quality that sounds like a controlled yell, as described by Hosbach-Cannon et al (2020). Singers often achieve it by employing what has been named ‘mix’ or ‘head-mix’, in M2 (Kochis-Jennings et al, 2014; Lee et al, 2023). Additionally, M2 appears in CCM for higher, softer, and often calmer singing. The existence of all these (and more) timbres in M2 suggests that, while the laryngeal muscular activity may be similar in all of them, different vocal tract configurations and resonances could lead to contrasting sounds (Winnie, 2017; Hosbach-Cannon et al, 2020; Michael, 2024). Amongst the many potential options to train, the following timbres were chosen to be presently explored:

- Covered: as used in classical singing or legit MT
- Mix: as used for high belting in CCM and MT, also known as ‘head-mix’ (Kochis-Jennings et al, 2014) or ‘reinforced falsetto’ (Guzman et al, 2014; Lee et al, 2023)

Before exploring the characteristics of the two chosen timbres, it is essential to define what M2 entails, at least for me and within the context of this paper. Table 1 shows how it has been described in the literature, in comparison to Mode 1 (known as chest register or M1).

**Table 1:** M1 and M2 (adapted from Bourne, Garnier and Kenny, 2011; Lee et al, 2023; Michael, 2024):

|                            | <b>M1</b>                                              | <b>M2</b>                                               |
|----------------------------|--------------------------------------------------------|---------------------------------------------------------|
| <b>Muscular activity</b>   | Thyroarytenoid (TA) dominant                           | Cricothyroid (CT) dominant                              |
| <b>Vocal folds</b>         | Thick<br>Full-length vibration<br>High Closed Quotient | Thin<br>No full-length vibration<br>Low Closed Quotient |
| <b>Acoustic perception</b> | Strong overtones<br>Heavier sound                      | Higher frequencies<br>Lighter sound                     |

There is some disagreement regarding CT and TA muscles’ role in the perceptual difference between M1 and M2. Some have found that CT/TA activity may be more related to pitch increase than registration change (Kochis-Jennings et al, 2014). However, the antagonism between the two muscles is still the most cited theory for register shifts and has long supported pedagogues’ understanding of them (Michael, 2024). In the absence of more comprehensive empirical data that might contest this theory, I accept its plausibility.

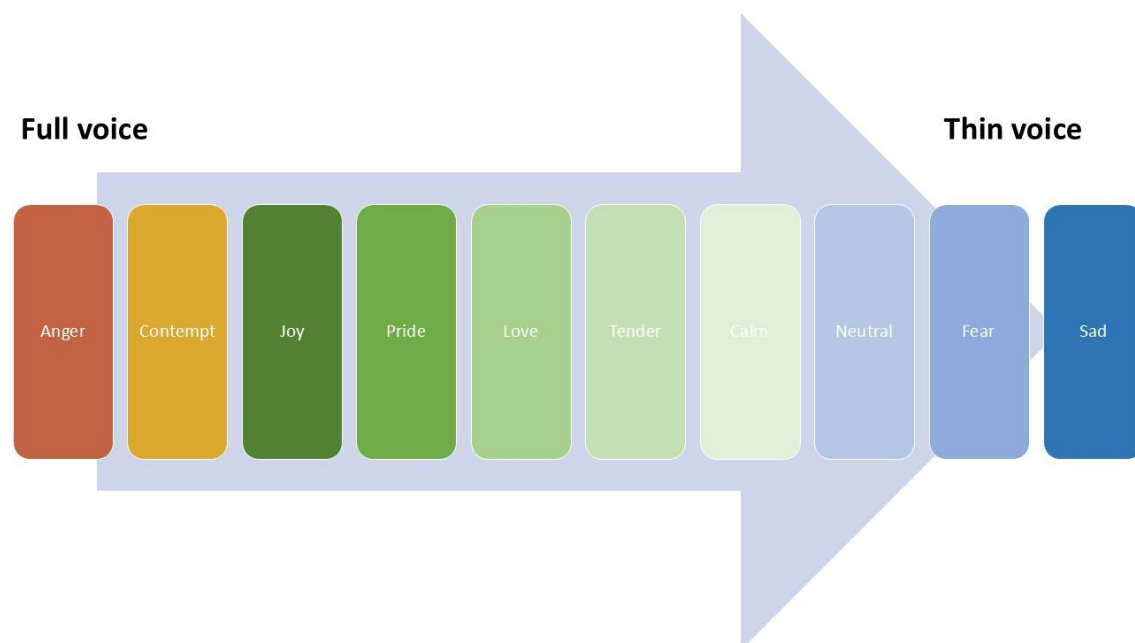
Similarly, the theme of vocal qualities and registers' features still lacks scientific consensus (particularly regarding the existence of 'mix'). However, an attempt has been made to gather information about the physiological and acoustic characteristics of my chosen timbres beyond the concept of CT's dominance (Table 2).

**Table 2:** Features of Covered and Mix timbres (information gathered from Bourne, Garnier and Kenny, 2011; Winnie, 2017; Roll, 2019; Barlett, 2020; Herbst, 2020; Hosbach-Cannon, 2020; Wilson, 2021; Read, 2021; Lee et al, 2023; Moniz, 2023; Robertson, 2025)

|                | Physiology                                                                                                                                                                                                                                                                                                                                                                                                                                    | Acoustics                                                                                                                             | Perceptions and sensations                                                                                                                                                                    |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Covered</b> | Thin folds<br><br>Short closed quotient<br><br>Low subglottic pressure<br><br>Long vocal tract with inverted megaphone shape, i.e.: <ul style="list-style-type: none"> <li>• Some jaw opening</li> <li>• Lower tongue position in most vowels</li> <li>• Lower larynx (round mouth)</li> <li>• Wide and compliant pharynx with more space</li> <li>• Greater soft palate space</li> </ul>                                                     | Moderate Sound Pressure level<br><br>Lower mean 1 <sup>st</sup> Formant                                                               | No clear transition between registers<br><br>Chiaroscuro sound: balance between brighter and darker resonances throughout the range<br><br>Seeks balanced onsets                              |
| <b>Mix</b>     | CT-dominant at vocal fold level, but with a vocal tract configuration similar to that of belt or M1<br><br>Low subglottic pressure<br><br>Short closed quotient (but still longer than Covered)<br><br>Megaphone-shaped vocal tract, i.e.: <ul style="list-style-type: none"> <li>• Shorter Pharyngeal Space</li> <li>• Higher larynx than in Covered</li> <li>• Wide jaw opening</li> <li>• Higher tongue position in most vowels</li> </ul> | Moderate Sound Pressure Level<br><br>Higher harmonics and higher first and second formants<br><br>Higher Mean 1 <sup>st</sup> Formant | Twangier than Covered, more 'forward-sounding', brighter<br><br>Narrow<br><br>"High energy scream", but comfortable<br><br>Onsets can be aspirated, balanced, or glottal<br><br>Pressed sound |

Voice science's lack of consensus extends beyond the physiological characteristics of vocal registers and timbres, being also evident in research into emotions' impact on vocal tract configuration and, consequently, their influence on timbre. In other words, it is not certain that my explorations around cross-training timbres through emotional cues would produce real-life results, as their physiological effect is not yet empirically established. This leads me to accept that it is not possible to fully ensure for myself that the resource I produce will be as evidence-based as I had wished. This gap in the literature requires me to more fully embrace the exploratory nature of this study, where I wish, as an experienced practitioner, to hypothesise that Vocal Expression of Emotion (VEE) and acting have the potential to assist my teaching of technique, even in the absence of clear scientific evidence supporting me. Therefore, information outlined in Tables 2 and 3 will only inform the development of exercises to a certain extent, with the influence of VEE theories and acting-based suggestions from the literature taking on a more prominent role. These theories shall include Sundberg, Salomao and Scherer's (2021) continuum of registration and emotions in spoken voice (Figure 3), where an association between certain emotions and the timbre they generate is suggested, connecting neatly with the purposes of this study.

**Figure 3:** Continuum of registration and emotions (based on Sundberg, Salomao and Scherer, 2021)



Regarding other technical details, the exercises' tessitura will consider the approximate passaggio in singers of all genders (Young, 2019), but in a non-prescriptive way, as I believe the range should be adjusted to each student. However, exercises must always lie within their M2. Additionally, vowels deemed more advantageous for each timbre shall be explored,

as well as Herbst's (2021) theory that exercises with a descending melodic pattern are advantageous for staying in M2 due to helping avoid abrupt laryngeal movements that cause the register to shift.

It should be noted that, before attempting to train these two timbres, students must already know what their M2 sounds and feels like. Nevertheless, because explaining or comprehending how to produce the contrasting timbres above can be challenging, this paper proposes EFOA-based approaches to ease the difficulties, as explained next.

#### Acting and EFOA: How technique and inner life could intertwine

EFOA in the singing studio refers to the use of strategies that deliberately avoid mentioning the singer's body, thereby promoting implicit rather than explicit learning (Helding, 2015; Maxfield and Treinkman, 2021). While significant scientific evidence suggests EFOA to be more effective for motor skills' retention than Internal Focus of Attention (IFOA) (Chua et al, 2021, Treinkman, 2022b), researchers like Helding (2016), Brand (2021), and Treinkman (2022b) have argued that, on certain occasions, IFOA or, at the very least, a combination of both loci, might be required. This is an argument I agree with because it would be fallacious to assume EFOA to be a miraculous solution for all technical difficulties. However, I disagree with Helding's (2016) judgement of EFOA being unsuitable for novice singers due to involving imprecise instructions such as "go with the flow" or "be in the moment" (p.622), which Helding implies are occurring in voice lessons. Such directives would indeed be redundant, but Treinkman's (2022a) survey of the instructions singers receive suggests that EFOA is being employed in ways that are way more precise and thought-through than what Helding suggests. Therefore, I do not think we should deem EFOA unsuitable for inexperienced students, especially as, from my experience, this is the population who struggles most with the jargon and difficult anatomical language often employed in IFOA. This is backed by other research asserting EFOA to be helpful for anyone at any level (Wulf, 2016; Chua et al, 2021; Maxfield and Treinkman, 2021; Treinkman, 2022b), possibly due to its accessibility and transferability. Nevertheless, Helding (2016) still contends that most research on the matter of EFOA involves athletes, not artists, and that the automaticity craved for in sports is not desirable in singing, as it may lead to underwhelming and inexpressive performances. However, Mornell and Wulf (2019) found that EFOA can, in fact, enhance musical expression and, from a practical perspective, I still find that a solid technique likely requires a degree of automaticity, especially when performing in a high-pressure environment, as explained by Maxfield and Treinkman (2021). Furthermore, Robertson's (2025) discussion on how acting can intertwine with EFOA reinforces my favourable view of the approach, as I find it difficult to imagine how bringing such emotional life to singing could result in wooden or lifeless performances.

Therefore, while early developments of the teaching resource's exercises will already involve a degree of VEE and acting, its second stage of development will be grounded on Meisner and Longwell's (1987) principles of spontaneity and connection to a partner (in this case, the teacher) to elicit or even reinforce the emotions needed to produce the required sounds. This will, where possible, work in tandem with Wilson's (2023) Emotional Play chart (Figure 4), which is used for improving technique, particularly in CCM singing. The chart groups emotions into five categories of overarching sentiments (happy, sad, angry, afraid, and ashamed) and organises them according to intensity, paralleling VEE theories regarding emotions' valence (whether they are positive or negative) and arousal (the level of required activity) (Hakanpää, Waaramaa and Laukkanen, 2021). Ultimately, I am aiming to explore ways to help students train the timbres by emotionally reacting to inputs from the teacher.

**Figure 4:** Emotional Play chart (extracted from Wilson, 2023, p. 191)

| INTENSITY | HAPPY                             | SAD                                   | ANGRY                           | AFRAID                                   | ASHAMED                                  |
|-----------|-----------------------------------|---------------------------------------|---------------------------------|------------------------------------------|------------------------------------------|
| HIGH      | Elated<br>Excited<br>Ecstatic     | Distressed<br>Hurt<br>Sorrowful       | Furious<br>Enraged<br>Disgusted | Terrified<br>Fearful<br>Panicked         | Disgraced<br>Mortified<br>Sorrowful      |
| MEDIUM    | Cheerful<br>Relieved<br>Satisfied | Depressed<br>Somber<br>Broken Hearted | Upset<br>Frustrated<br>Betrayed | Frightened<br>Threatened<br>Apprehensive | Apologetic<br>Guilty<br>Embarrassed      |
| LOW       | Content<br>Pleased<br>Glad        | Upset<br>Disappointed<br>Unhappy      | Annoyed<br>Irritated<br>Touchy  | Nervous<br>Timid<br>Anxious              | Uncomfortable<br>Regretful<br>Ridiculous |

However, as it is the pedagogue's responsibility to know exactly what they want the student to achieve and deliberately choose the most effective strategies (Maxfield and Treinkman, 2021), complete spontaneity on their part might not be helpful. For this reason, the teacher's role will be grounded on Strandberg-Long's (2019) theory that Stanislavski's Active Analysis tool (used to generate counter-actions based on a character's motive) can work in tandem with Meisner's reactivity for greater conflict and, consequently, emotional affect. Put differently, it is expected that intentional inputs from the teacher could be more successful in achieving the intended timbre for the student than merely relying on spontaneity. To create the counter-actions, I shall use transitive verbs as Dramatic Actions (Liron, Raindel and Alon, 2018). This rationale will directly inform the practical decisions I make when designing the exercises outlined in the next section.

## Know How

### Intended timbres

This section details the initial phase of the resource's iterative development, presenting the early design decisions that shaped later stages. In this phase, I identify song excerpts or isolated spoken phrases that could stimulate favourable vocal tract configurations and emotional engagement for my intended timbres. The objective is to turn them into exercises, as done by other practitioners (Spivey and Saunders- Barton, 2018; Rosenberg and LeBorgne, 2019).

Given the proximity of CCM and MT singing to the spoken voice (Kayes and Welch, 2017; Jiang, 2024), Mix exercises can be effectively grounded on Sundberg, Salomao and Scherer's (2021) continuum (Figure 3), as expected. I choose to explore the emotion 'Contempt', which lies on the continuum's far-left side, where the voice is fuller and thicker, which are desirable features for Mix. Anger (the fullest-sounding emotion) is not featured in the exercises because, from my experience, it risks triggering high levels of arousal in students, which could cause undesired muscular tension (Helding and Ragan, 2022). Contempt, however, is a much more contained version of anger that still aims for a full sound. Therefore, resulting exercises feature words with a contemptuous demeanour, as well as the vowels [ae] and [a] (Figure 5), which are recommended by Moniz (2023) for achieving the ideal acoustic conditions to sing in CCM and, I believe, develop a 'belt-sounding' mix.

**Figure 5:** Examples of mix exercises (Exercise 2 extracted from Sheik and Sater, 2006)

Contemp.

①

That's mine That's mine That's mine

That's mine That's mine That's mine

②

Bleh bleh bleh bleh bleh bleh bleh bleh bleh

Bleh bleh bleh - bleh -

Bleh bleh bleh bleh bleh bleh bleh bleh bleh

Bleh bleh bleh - bleh -

However, because the Classical/legit sound is less about approximating normal speech (like MT and CCM) and more about achieving clear vowels, balancing registers, and achieving better acoustic efficiency (Kayes and Welch, 2017; Winnie, 2017; Jiang, 2024), Covered timbre cannot be effectively situated within an emotional framework derived from the spoken voice. Doing so might not serve the style appropriately and could risk confusing emerging singers, for whom this desired vocal tract configuration might not feel as natural as the emotions presented in the continuum. For this reason, Covered timbre departs instead from sounds with the potential to elicit the appropriate vocal tract configuration, including cartoon voices, yawning, or ghostly sounds (Maxfield and Treinkman, 2021; Treinkman, 2022b). These introduce familiar experiences and sensations into the singing, helping the learner produce the required sound, as intended by EFOA (Treinkman, 2022b).

Resulting vocalisations feature, for example, a ghostly /u/ (Figure 6, *Haunted House*) to find a lower laryngeal position (Winnie, 2017), and to help train the middle range around the singer’s passaggio (Bozeman, 2010; Lee et al, 2023). The *Doris Speaking Whale* exercise draws on Treinkman’s (2022b) suggestion that imitating cartoons’ voices with low larynges aids in training this setup in an accessible way. It adapts Doris’ attempts to ‘speak whale’ in *Finding Nemo* (2003) to practise different vowels and allow portamenti across the range (Figure 7).

**Figures 6/7:** Covered exercises (*Haunted House*, *Doris Speaking Whale*):

Despite the Emotions Continuum being less applicable to Covered, the alternative explorations still emphasise emotional or expressive intentions. They are designed so that students can successfully sing them without extensive explanation, as they draw from familiar, externally focused experiences. However, all exercises presented above for both timbres are inherently repetitive which, from my experience, may lead to distraction and a degree of disengagement that undermines the vocal sound. This observation concurs with Silva's (2022) point that repetitive learning may not be as beneficial as commonly thought and highlights the value of developing the exercises further in a Meisner-inspired way to keep them engaging throughout, as outlined in the next section.

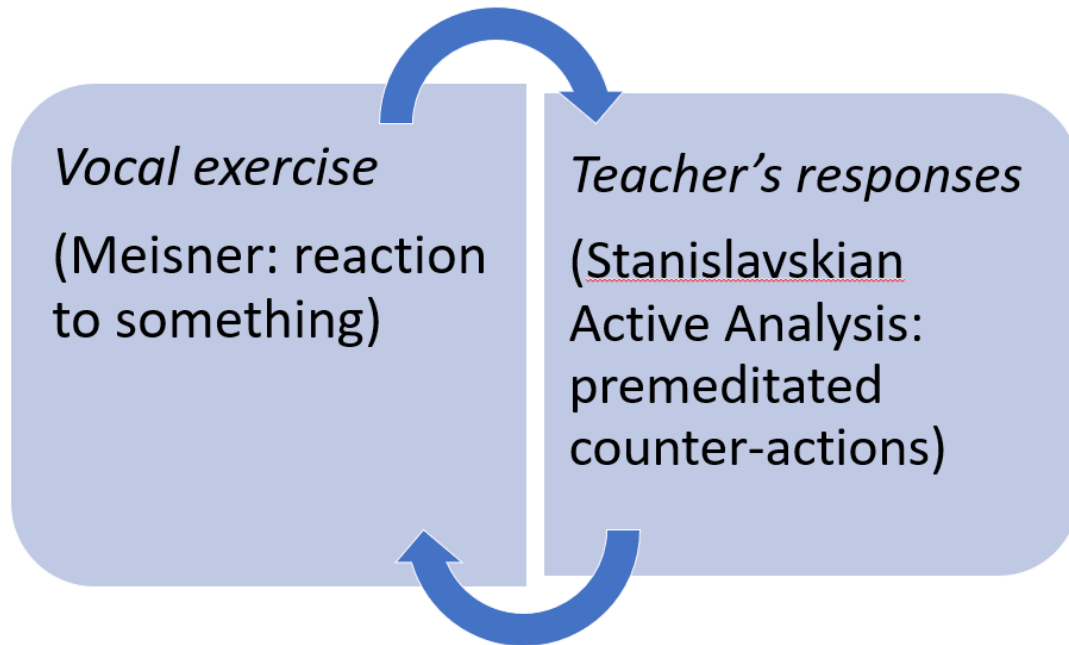
### Acting and EFOA

In this phase, exercises become duets, where the teacher 'feeds' emotional cues to the student (both roles shall henceforth be referred to as Student and Partner). This structure is designed to reinforce the dominance of EFOA in my artefact by distancing the exercises from the acoustic and physiological concerns that underpin them and directing the Student's focus towards the Partner, avoiding internal monitoring.

The design of the Partner's prompts aims to provoke continuous emotional responses in the Student, without them thinking they need to 'do something' with their voice. Unlike previous iterations featuring more random and spontaneous responses in the Partner's part, in the final teaching resource their interventions are grounded in Stanislavskian Dramatic Actions, in accordance with Strandberg-Long's (2019) framework. These take shape through transitive verbs from Caldarone and Lloyd-Williams's (2004) thesaurus, and help the Partner

achieve their objective in the scene. The verbs generate counter-actions that gradually escalate the conflict by triggering emotional and spontaneous responses in the Student (as visualised in Figure 8).

**Figure 8:** Correlation between reaction and counter-action (based on Strandberg-Long, 2019)



For example, in the ‘That’s mine’ exercise, there is already an imaginary conflict where the Student is saying those same words to the Partner with contempt, because there is an object they both believe they should keep. As shown in Figure 9, to maintain the conflict and keep the object for themselves, the Partner employs actions such as ‘I dare you’ (“Excuse me?”), ‘I challenge you’ (“It’s not!”), or ‘I mock you’ (“Nice try!”) (Caldarone and Lloyd-Williams, 2004). While, as previously mentioned, anger is not a desired emotion to employ in singing, these actions are likely to provoke feelings within that category, in accordance with Wilson’s (2023) Chart (please refer to Figure 4). However, it is not intended for these to go beyond Low and Medium intensity emotions throughout, for vocal health reasons.

**Figure 9:** Version of “That’s mine” duet grounded on actions and objectives

Student

That's mine! That's mine! That's mine! That's mine! That's mine!

Partner

What? Yours? Ex cuse me? Youserious?

I question you I dare you

S.

That's mine! That's mine! That's mine! That's mine! That's mine!

P.

It's not! It's mine! Nice try! Boo hoo! Wait.

I challenge you I mock you I manage you

All three additional exercises included in the teaching resource follow the same principles outlined above:

- *Blaa blaa blaa* (Figure 10): Controlling a naughty Student who responds to everything with a contemptuous “Blaa blaa blaa” is the Partner’s objective. I can anticipate this to be a fun exercise for the Student because, despite the Partner’s efforts to stop their behaviour, they are always unsuccessful. This allows the Student’s initial contempt to potentially evolve into low-level Happiness (please refer to Figure 4), which is another emotion likely to promote Mix, according to Wilson (2023). This makes it important to ensure that counter-actions still allow for an underlying contempt to linger in the Student because, according to Sundberg, Salmoao and Scherer’s (2021) continuum, if their emotions shift too far from the left, the thick sound intended for Mix could be lost. For this reason, actions such as ‘I admonish you’ (“Are you even listening?”) or ‘I threaten you’ (“You’ll be removed!”) become a visibly ineffective attempt at controlling someone who keeps responding with “Blaa blaa blaa”, nurturing a ‘contemptuous happiness’ in the Student, because they still resist and may even take pleasure in their success.

**Figure 10:** *Blaa blaa blaa*

25 Db

S. Blaa blaa blaablaa blaa blaa blaa blaa blaa-

P. Are you e ven lis tening?

I admonish you

28 Ab/C Bsus2

S. - blaablaablaa blaa Blaa blaablaablaa blaablaablaa blaa-

P. You'llberemoved!

I threaten you

- *Haunted House* (Figure 11): While the Student might instinctively focus on sounding ghostly, the Partner's counter-actions serve as a constant reminder for them to continue attempting to sound scary, keeping them engaged in the exercise. Departing from an objective of unmasking a 'ghost' (the Student), the Partner's slow and cautious responses are based on actions such as 'I interrogate you' ("Who's there?") or 'I command you' ("Stop That!"), which are intended to further motivate the Student to maintain the appropriate vocal tract configuration.

**Figure 11:** *Haunted house*

Fm F#m Gm

Student Wo oo oo Wo oo oo Wo oo oo

Partner Who's there? Stop that!

I interrogate you I command you

- *Doris Speaking Whale* (Figure 12): With the Student acting out as Doris, the Partner assumes the role of the whale, who always sings the same words ("What?"). This repetition, reflecting the film's context of the whale not understanding Doris, supports its objective of attempting to trap Doris by keeping her singing and engaged. The role of the different Dramatic Actions (such as "I question you" and "I resist you") is

therefore enhanced by the constant repetition of the same words, becoming the primary means through which the Partner varies the delivery of their counter-actions and elicits shifting responses from the Student.

**Figure 12:** *Doris Speaking Whale*

Student

We - need to fi - nd his son We - need to

Partner

Wha at?

I question you

S.

fi - nd his son We - need to fi - nd his son

P.

Wha at?

I comfort you

Wha at?

I resist you

The final iteration of the resource (please see Appendix A) consolidates the four exercises and prompts, designed to maintain an ongoing connection between Partner and Student, simultaneously promoting EFOA and appropriate acoustic and physiological adjustments to train both Intended Timbres. The Dramatic Actions are deliberately included beneath the prompts, helping the Partner navigate them in contrasting but purposeful ways. To avoid intellectualising and overprescribing reactions, any suggestions for emotions beyond the initial and underlying contempt in Mix are omitted. Instead, each exercise includes a small selection of alternative transitive verbs for the Partner to employ improvisationally at any time, supporting “variability, desirable difficulties and flexibility [to] improve not only technique, but also interest in the long run” (Silva, 2022, p.305). This structure positions the resource as flexible yet intentional, allowing scope for the exercises to evolve more spontaneously while remaining aligned with their vocal objectives.

## Know What

### What?

The previous pages outlined the process of developing a set of exercises to train two contrasting M2 timbres through EFOA, by employing acting-based strategies. I managed to develop four exercises that I can potentially use in my lessons, as they ultimately meet some of the criteria I had hoped for: they integrate motor learning science, acting, and cross-training principles, using acting as a means to direct focus externally and produce contrasting vocal qualities. Additionally, they promote spontaneity and connection by directing the Student and the Partner to work off each other through the duets.

Despite having undertaken a detailed search of the literature, I had believed I would gather more evidence on how specific emotions can elicit certain vocal tract configurations, establishing a greater link between scientific theories and technical proficiency. However, due to a lack of consensus and solid data across the literature, this did not happen, leading me to conclude that I had set out unrealistic expectations for this project when I first started. Perhaps a fully scientifically grounded resource was never possible because researchers do not have all the answers themselves, and possibly never will. In fact, this study could inadvertently have been seeking to generalise something that is not generalisable, as each student is unique and no strategy will ever work equally for everyone (Maxfield and Treinkman, 2021; Hansen, 2024).

I therefore needed to adapt my expectations and objectives to the propositional information available to me. I did so by accepting limitations in current scientific knowledge and shifting my attention to qualitative data, often anecdotal, reported by practitioner-researchers in scholarly journals and books, or observed by me in my practice. As a result, finding ways that acting, particularly Meisner's technique, could aid technical and contrasting singing development became the central focus of the project. This direction felt much more accessible for a practitioner-researcher like me to explore and develop.

Throughout the study, I benefited from an iterative process that allowed for experimentation, giving me flexibility to acknowledge how some approaches (such as Sundberg, Salomao and Scherer's, 2021, continuum) might work better with certain timbres than with others. This enabled me to try alternative frameworks instead, and better serve my purposes of creating a usable pedagogical resource.

For these reasons, I believe I met, at least to some degree, my original aims of improving my approaches to integrating singing and acting, engaging with PaR, and creating a teaching resource for cross-training singers. However, the cross-training aspect of the study was underdeveloped and limited, not matching my initial ambitions of exploring more contrasting

timbres. This was a consequence of my delayed understanding of the possible scope of the paper, which led to a decision to prioritise depth in my EFOA and Meisner explorations, rather than creating a broad cross-training framework, of which there are already many available, as noted in Component 1.

### So what?

This study was my response to calls from practitioner-researchers for voice pedagogues to develop creative EFOA-based strategies to teach technique (Maxfield and Treinkman, 2021; Brand, 2021; Treinkman, 2022b; Robertson, 2025), while avoiding IFOA as much as possible. I have come to view the Meisner technique as a plausible strategy to achieve this, as it can provoke emotional responses intended to produce contrasting vocal timbres without detailed anatomical instructions or modelling, avoiding, as EFOA intends, the intellectualisation of singing.

Consequently, this teaching resource is expected to be accessible to emerging and inexperienced singers for whom internally focused directives could feel mystifying, as anatomical concepts might not be familiar to them. However, the Component 1 assessment criterion “What could [the artefact’s] practical impact be in a real teaching scenario?” leads me to consider how it would take shape with different types of students. For example, I would argue that learners who are more mature or playful, rather than self-conscious, are very likely to successfully engage with these exercises and benefit from them. After all, there is a degree of ridiculousness in all of them, and some open-mindedness is paramount to fully immerse oneself in the duet and emotionally react to the prompts. However, where a good rapport between the Student and Partner is not yet present, finding this connection might be difficult. This implies that, even if the student is playful and open-minded, they might struggle to truly connect with my prompts if that personal relatedness is not established first. In a slight variation of this scenario, I can envision students with whom I might have a very good rapport and who are innately playful. However, the absurdity of exercises such as *Haunted House* might cause such students to lose composure and have the urge to laugh instead of singing through the exercise, failing to achieve the Intended Timbre. It is therefore reasonable to consider that, in this context, prompts might not work or would need to be reduced to the minimum required to help keep the student engaged in the exercise.

Contrastingly, like many voice pedagogues, I have also come across students who are either easily embarrassed or simply reluctant to sing, characteristics particularly prevalent amongst many young or adolescent singers. I would not feel comfortable using this teaching resource in this context, as it might exacerbate such feelings and be counter-productive. In this scenario, it would be more important to build their confidence and rapport with me first, by nurturing their current vocal skills and avoiding the inherent challenges that come with the

exercises I created, such as the proneness for embarrassment or potential unreasonable levels of technical difficulty.

Beyond learner characteristics, it is worth noting that, while the teaching resource seems to propose ways to improve students' motor *performance* (i.e., leading to instant improvements), it remains unclear whether these exercises would also improve motor *learning* (actual permanent skill retention and transferability), an important distinction that Maxfield and Treinkman (2021) highlighted. Without empirical data collected over time, it is not possible to confirm whether this learning would materialise. However, it remains a strong possibility, as researchers argue that an expressive focus can enhance technical accuracy (Meissner, 2021; Juntunen, Arlin and Liira, 2023), which is precisely the intention behind these exercises.

Alongside these pedagogical and theoretical considerations, this project has offered me insights not just into the exercises themselves and their technical goals, but also into my own development as a practitioner who wants to keep her lessons fresh and engaging. To someone who always loved Meisner technique as a performer due to its emphasis on the present and on impulses, this study's explorations present exciting prospects for my practice. They have the potential to change how I approach my lessons and consider how theory can be applied creatively rather than rigidly. After all, I now envisage the possibility of Meisner being functional in singing, not only in a context of acting through song, but also to support technical growth in learners. The exercises' design demonstrates how theoretical principles of EFOA and Meisner technique can translate into practical teaching strategies.

### Now What?

The final resource is the result of extensive theoretical research and experimentation through an iterative process, but there are other shapes this could take. The reflections above regarding students' potential responses to the exercises highlight a future need to develop strategies for troubleshooting during lessons based on their characteristics, a gap not fully addressed by the alternative Dramatic Actions already available.

Additionally, when using this resource in lessons, I would likely question how often and for how long to use the Partner's prompts within the exercises. This is due to the potential risk of them eventually leading to overreliance and dependency on the teacher, much like frequent modelling or feedback might (Crocco and Meyer, 2021). That said, these prompts could also offer a way around those pitfalls, as they do not function as direct feedback or modelling, but instead act as an instigator of an emotional response. However, over time, the prompts might become less necessary, or their frequency within each exercise could decrease. Could simple facial expressions from the Partner suffice? Such a development could keep the

connection alive (if eye contact is maintained) because there would still be a provocation occurring, even if at a completely silent level. Ultimately, only an empirical study, potentially within an action research context where I implement my ideas in my practice (Rowley, 2003), could attempt to address such questions. While I have not yet decided whether to do so in an ethically-approved study, I intend to try this resource informally with several trusted students who I know are likely to respond well to it, and gain practical insights into its effectiveness with them.

Other future iterations of this artefact will require adaptations to accommodate the diverse cultural identities of students, as these could impact the way they interact with the exercises (Cespedes-Guevara and Eerola, 2018; Hansen, 2024). While I currently work in London with students who mostly speak English as their first language, I may eventually work in my native Portugal with Portuguese-speaking students. In that instance, the most obvious step would be to adapt or translate these exercises into Portuguese, to ensure they promote the Intended Timbres in a way that feels natural for such learners.

Ultimately, while this artefact did not intend to fully cross-train the voice, it could aim to do so in the future by including a greater variety of exercises for different timbres. Perhaps it could eventually be developed into Moniz's (2023) idea of creating training circuits, which he named "vocal supersets" (p. 64), where singers exercise different registers and timbres within a short amount of time, instead of lingering on one. While the scope of this paper did not allow for such a development, even for the two timbres explored here, it could take shape by rapidly cutting off and alternating exercises, to increase singers' stamina, much like a body conditioning routine.

## Conclusion

This project allowed me to study whether and how acting can be used as a strategy to cross-train singers, due to its potential to promote EFOA (Robertson, 2025). An exploratory teaching resource combining voice acoustics and physiology principles with Meisner and other acting-inspired tools was created. It was an iterative process that began with isolated exploration of each timbre from a more technical point of view and progressed into an active collaboration between learner and teacher, something Holding and Ragan (2022) have called for to boost learning.

I acknowledge that this artefact (and consequently the paper) is limited to training two vocal styles within a restricted range, when in fact genuine cross-training requires the exploration of the entire tessitura of the singer and across different registers, for greater overall efficiency and health (Michael, 2024). After all, a pedagogy focusing exclusively on the

higher range presents the risk of increased fatigue and muscular pain (Moniz, 2023), making it essential to recognise my artefact for what it is: an initial version of a broader 'vocal cross-training through acting' teaching toolkit that I need to keep developing.

I recommend further research to be carried out to explore these ideas in empirical studies with emerging singers, both in vocational and non-vocational settings. This is because I have come to view the integration of vocal technique and acting as a step towards what Holding and Ragan (2022) described as a humanistic approach that promotes holistic pedagogy by integrating skills attainment and creativity, making it deserving of greater attention from the research community.

## **Critical Reflection**

For this Critical Reflection, I was tempted to follow on my previous tendencies in this paper of relying on Borton's reflective cycle (1970) for evaluation and narrative structure. However, for something as personal as a Critical Reflection, I tend to prefer models that prompt even more depth and detail. Also, in a project that pushed and challenged me for so many months, it seems fair for me to finish by indulging in a framework that feels more familiar and comfortable, due to having assisted me in previous critical reflections. One such model is Gibbs' (1988) Reflective Cycle, with its emphasis on feelings and how they affect the learning process.

### Description

This paper was my opportunity to immerse myself in three disciplines I am deeply interested in, and to use this transdisciplinarity to attempt to answer my research question more holistically (Hansen, 2024) and create an artefact. These disciplines were vocal cross-training, motor learning science, and acting. While I already had an advanced understanding of the latter due to extensive training and professional experience, my knowledge about the other two was more basic. The past few months were therefore significant in terms of knowledge acquisition for me, as well as for comprehending how these themes may coexist.

### Feelings

This project aroused all sorts of contradictory feelings in me. I alternated between elation and excitement about its contents, and frequent overwhelm and sensation of being lost in them too, due to their vastness. There was also a constant feeling of self-consciousness that never left me, specifically regarding the creative process of the artefact. Not a day passed in which I did not look at or think about it without judging it harshly as potentially silly or useless.

### Evaluation

Good: The excitement and inherent interest about the explored themes made it easy to stay engaged with the project, despite the difficulties I faced. While this excitement had the caveat of sometimes causing me to get lost in way more literature and information than what I needed, intensive reading about those themes was crucial to help me feel empowered to write about them (Maguire, Reynolds and Delahunt, 2020). The process became easier when I decided to severely limit the scope of the study. While it was difficult to accept a smaller resource than I had intended, this allowed me to immerse myself more deeply in the theories I wanted to develop.

Bad: My insecurities about my artefact led to procrastination, as I did not want to make a final decision about it. Sudirman et al (2023) reported that, frequently, academic procrastination is directly linked to fear of failure and perfectionism, and I believe this insight perfectly encapsulates what occurred in this project. To deal with this, I kept trying to complete as much of the paper as possible without fully committing to an exact resource, so that I could still feel like I was somehow making progress, whilst avoiding a decision. While this kept the project from stalling indefinitely, it also meant that, once I made up my mind, I had to rewrite entire sections of the paper.

### Analysis

Despite my excitement for this study, my own insecurities constantly undermined its progress. I believe this made it particularly challenging for me to handle the two roles required to assume throughout the project: those of practitioner and researcher. Each of them reflects Candy and Edmonds' (2018) clear differentiation between research (the process of developing new knowledge that contributes to a wider field) and practice (a real-life application of an idea, or an activity). While it is known that PaR intertwines both elements/roles to generate new knowledge and theories (Pilegaard and Philipsen, 2023, citing Schatzki, 2002), I believe separating them more clearly throughout the process would have been beneficial. I struggled immensely to stay immersed in the creative practitioner role and was incapable of working on my artefact without constantly interrupting myself to go back to the literature to try and justify what I was attempting to do. This suggests that, throughout my degree, reading and critically analysing theoretical knowledge and its implications became my comfort zone, while simply letting go and being creative in a process of PaR felt very daunting. This appears to be symptomatic of the "persistent gap between practice expertise and academic research requirements" (Duffy, Hidson and Deacon, 2025), and was a difficulty I never completely overcame, even when I found that scientific literature did not always provide me with the solid answers I craved. However, in my day-to-day, I frequently come up with exercises spontaneously on the spot whilst teaching, either because I am inspired by something I hear, or because a student needs them. Perhaps this occurs because, in that context, there is no time to second-guess and check in the literature if what I'm doing is theoretically sound. Additionally, in such instances, I get instant feedback from the student and know quickly whether my new strategy produces the desired effect or not, which does not happen here. Repeatedly immersing myself in the literature felt like the best way to get that external validation and feedback on my artefact.

### Conclusion and Action Plan

Despite the many creative difficulties that I found in this project, I believe I fulfilled LO1, as I certainly have enhanced my understanding of what cross-training is and how it could be achieved through EFOA and acting. In fact, I believe I set the foundations to create something greater for myself than the actual artefact: an overall teaching philosophy where versatility in singers is sought through VEE and Meisner-inspired connection. LO2, regarding the link between voice acoustics and EFOA, was much less successful because of a lack of clear exploration between both within the literature, highlighting my need to accept that I will never have all the answers I seek for everything (Tan and Koh, 2023). However, I managed to come up with a usable resource (LO3) that encompassed, to the best of my ability, all the elements I wanted: cross-training, motor learning science, and acting.

In the near future, I intend to build on what I have learned throughout this study. I will work on enhancing my understanding of voice acoustics and physiology through courses or literature more focused on their practical implications in the voice studio, rather than only exposing scientific theories. I ought to also work on becoming more comfortable at creating exercises, inspired by what I already know. This would mean relying more on my experience as a practitioner which, as Holding and Ragan (2022) remarked, is as valid as any other type of knowledge.

## References

- Accetta, V. (2022) 'Estill Voice Training and the Gender Non-binary Singer', *Voice & Speech Review*, Vol.16 (2), p.200-207. DOI: 10.1080/23268263.2022.2033437
- Adams, R.J., Smart, P. and Huff, A.S. (2017) 'Shades of Grey: Guidelines for Working with the Grey Literature in Systematic Reviews for Management and Organizational Studies', *International journal of management reviews : IJMR*, 19(4), pp. 432–454. DOI: 10.1111/ijmr.12102
- Bartlett, I. (2020) 'Crossing Style Borders: New Inroads in Training Teachers of Singing', *Voice & speech review*, 14(2), pp. 184–195. DOI: 10.1080/23268263.2020.1695878
- Borton, T. (1970). *Reach, touch and teach*. Hutchinson.
- Bourne, T., Garnier, M., Kenny, D. (2011) 'Music theater voice: production, physiology and pedagogy', *Journal of singing*, 67 (4), p.437. Available at: <https://research-ebsco-com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/7smstsjiwj?route=details> (Accessed: 12 October 2025)
- Bozeman, K. W. (2010) 'Voice Pedagogy: The Role of the First Formant in Training the Male Singing Voice', *Journal of singing*, Vol.66 (3), p.291-297. Available at: <https://research-ebsco-com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/jp4dd7k4cj?route=details> (Accessed: 6 November 2025)
- Brand, S. (2021) 'Attentional Focus Effects and Singing: Enhancing Vocal Performance through Body Movements and Gestures as External Foci of Attention', *The international journal of arts education*, 16 (2), p.1-12. DOI: 10.18848/2326-9944/CGP/v16i02/1-12
- Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative research in psychology*, Vol.3 (2), p.77-101. DOI: 10.1191/1478088706qp063oa
- Caldarone, M. and Lloyd-Williams, M. (2004) *Actions: The Actor's Thesaurus*. Drama Publishers.
- Candy, L. and Edmonds, E. (2018) 'Practice-Based Research in the Creative Arts: Foundations and Futures from the Front Line', *Leonardo (Oxford)*, 51(1), pp. 63–69. DOI: 10.1162/LEON\_a\_01471
- Cespedes-Guevara, J. and Eerola, T. (2018) 'Music Communicates Affects, Not Basic Emotions – A Constructionist Account of Attribution of Emotional Meanings to Music', *Frontiers in psychology*, 9, pp. 215–215. DOI: 10.3389/fpsyg.2018.00215

Chua, L.-K., Jimenez-Diaz, J., Lewthwaite, R., Taewon, K. and Wulf, G. (2021) 'Superiority of External Attentional Focus for Motor Performance and Learning: Systematic Reviews and Meta-Analyses', *Psychological bulletin*, 147(6), pp. 618–645. DOI: 10.1037/bul0000335

Crocco, L. and Meyer, D. (2021) 'Motor Learning and Teaching Singing: An Overview', *Journal of singing*, Vol.77 (5), p.693-702. Available at: <https://research-ebsco-com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/t3zxxlf5yf?route=details> (Accessed: 8 November 2025)

Duffy, K., Hidson, E. and Deacon, L. (2025) 'Facilitating Practice-Led Research Culture in Initial Teacher Training: The case of Agile Research Teams (ARTs)', *Exchanges (Coventry)*, 12(3), pp. 113–132. DOI: 10.31273/eirj.v12i3.1831

*Finding Nemo* (2003) Directed by A. Stanton and L. Unkrich [Feature film]. Buena Vista Pictures Distribution.

Ford, J. (2023) 'Vocal Science as the Basis of a Non Genre-Biased Vocal and Choral Pedagogy', *Voice & speech review*, 17(2), pp. 231–236.

Gibbs, G. (1988) *Learning by Doing: A Guide to Teaching and Learning Methods*. Great Britain: Further Education Unit.

Grix, J. (2001) *Demystifying Postgraduate Research: from MA to PhD*. 1st edn. Edgbaston: University of Birmingham Press.

Guzman, M., Barros, M., Espinoza, F., Herrera, A., Parra, D., Lloyd, A., (2014) 'Resonance strategies revealed in rock singers during production of high notes', *Journal of singing*, Vol.71 (2), p.183-192. Available at: <https://research-ebsco-com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/5xucljzlv?route=details> (Accessed: 9 November 2025)

Haile, Z.T. (2023) 'Power Analysis and Exploratory Research', *Journal of human lactation*, 39(4), pp. 579–583. DOI: 10.1177/08903344231195625

Hakanpää, T., Waaramaa, T. and Laukkanen, A.-M. (2021) 'Comparing Contemporary Commercial and Classical Styles: Emotion Expression in Singing', *Journal of voice*, 35(4), 35 (4), p.570-580. DOI: 10.1016/j.jvoice.2019.10.002

Hansen, P. (2024) 'Transdisciplinary solutions to methodological and ethical problems in performing arts psychology', *Frontiers in psychology*, 14, p. 1330479. DOI: 10.3389/fpsyg.2023.1330479

Helding, L. (2015) 'Motor learning and voice training: locus of attention', *Journal of singing*, 72(1), pp. 87–91. Available at: <https://research-ebsco-com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/uawrfv7vg5?route=details> (Accessed: 29 August 2025)

Helding, L. (2016) 'Motor learning and voice training, part II. Locus of attention: internal or external? That is the question', *Journal of singing*, 72(5), p. 621. Available at: <https://research-ebsco-com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/ndyhrt6ftj?route=details> (Accessed: 27 August, 2025)

Helding, L. and Ragan, K. (2022) 'Evidence-Based Voice Pedagogy (EBVP), Part 3: Student Goals and Perspectives', *Journal of singing*, 78(5), pp. 635–640. DOI: 10.53830/LOGC7063

Herbst, C. T. (2020) 'Registers--The Snake Pit of Voice Pedagogy: PART 1: PROPRIOCEPTION, PERCEPTION, AND LARYNGEAL MECHANISMS', *Journal of singing*, Vol.77 (2), p.175-190. Available at: <https://research-ebsco-com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/m6ysixq5qz?route=details> (Accessed: 12 October 2025)

Herbst, C. T. (2021) 'Registers--The Snake Pit of Voice Pedagogy: PART 2: MIXED VOICE, VOCAL TRACT INFLUENCES, INDIVIDUAL TEACHING SYSTEMS', *Journal of Singing*, Vol.77 (3), p.345. Available at: <https://research-ebsco-com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/tc6e2yqijj?route=details> (Accessed: 9 November 2025)

Hosbach-Cannon, C. J., Lowell, S. Y., Colton, R. H., Kelley, R. T. and Bao, X. (2020) 'Assessment of Tongue Position and Laryngeal Height in Two Professional Voice Populations', *Journal of Speech, Language, and Hearing Research*, Vol.63 (1), p.109-124. DOI: 10.1044/2019\_JSLHR-19-00164

Jaeger, R.G. and Halliday, T.R. (1998) 'On Confirmatory versus Exploratory Research', *Herpetologica*, 54, pp. S64–S66. Available at: <https://www-jstor-org.ezproxy.uwtsd.ac.uk/stable/3893289?sid=primo&title=On+Confirmatory+versus+Exploratory+Research&seq=1> (Accessed: 1 November 2025)

Jiang, Jing (2024) 'From Bel Canto to Crossover Singing: Adaptations and Challenges for Singers', *Journal of Humanities, Arts and Social Science*, 8(1), 29-35. DOI: 10.26855/jhass.2024.01.005

- Juntunen, M. L., Arlin, E. P. and Liira, K. (2023) 'Expression in popular music singing as embodied and interpersonal', *Frontiers in education* (Lausanne), 8, pp. 1-10. DOI: 10.3389/feduc.2023.1092736
- Kayes, G. and Welch, G.F. (2017) 'Can Genre Be "Heard" in Scale as Well as Song Tasks? An Exploratory Study of Female Singing in Western Lyric and Musical Theater Styles', *Journal of voice*, 31(3), p. 388.e1-388.e12. DOI: 10.1016/j.jvoice.2016.09.015
- Kochis-Jennings, K., Finnegan, E., Hoffman, H. T., Jaiswal, S., Hull, D. (2014) 'Cricothyroid Muscle and Thyroarytenoid Muscle Dominance in Vocal Register Control: Preliminary Results', *Journal of voice*, Vol.28 (5), p.652.e21-652.e29. DOI: 10.1016/j.jvoice.2014.01.017
- Lee, Y., Oya, M., Kaburagi, T., Hidaka, S., Nakagawa, T. (2023) 'Differences Among Mixed, Chest, and Falsetto Registers: A Multiparametric Study', *Journal of voice*, Vol. 37 (2), p.298.e11-298.e29. DOI: 10.1016/j.jvoice.2020.12.028
- Liron, Y., Raindel, N. and Alon, U. (2018) 'Dramatic action: A theater-based paradigm for analyzing human interactions', *PloS one*, 13(3), p. e0193404. DOI: 10.1371/journal.pone.0193404
- Maguire, M., Reynolds, A.E. and Delahunt, B. (2020) 'Reading to be: The role of academic reading in emergent academic and professional student identities', *Journal of university teaching & learning practice*, 17(2), pp. 1–14. DOI: 10.53761/1.17.2.5
- Martin, B.H. (2018) 'Mixed-Methods Triage: Coalescing Holistic Perspectives for a More Diverse and Inclusive Academy', *Electronic journal of business research methods*, 16(2), pp. 80–85. Available at: [https://www.proquest.com/docview/2118231825/fulltextPDF?accountid=130472&parentSessionId=Gl6QB2GKa10Fa7Mw3YkglvKZ3sHoW9nsUidr8DJrdcs%3D&pq-origsite=primo\\_ra&sourcetype=Scholarly%20Journals](https://www.proquest.com/docview/2118231825/fulltextPDF?accountid=130472&parentSessionId=Gl6QB2GKa10Fa7Mw3YkglvKZ3sHoW9nsUidr8DJrdcs%3D&pq-origsite=primo_ra&sourcetype=Scholarly%20Journals) (Accessed: 8 November 2025)
- Maxfield, L. and Treinkman, M. (2021) 'Focus of Attention Research: A Review and Update for Teachers of Singing', *Journal of singing*, 77(3), pp. 407–418. Available at: <https://research-ebsco-com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/44msa3clcb?route=details> (Accessed: 12 October 2025)
- Meisner, S. and Longwell, D. (1987) *Sanford Meisner on Acting*. 1edn. Vintage books.
- Meissner, H. (2021) 'Theoretical Framework for Facilitating Young Musicians' Learning of Expressive Performance', *Frontiers in psychology*, 11, pp. 1-21. DOI: 10.3389/fpsyg.2020.584171

Michael, D.D. (2024) 'Don't Throw the Baby Out with the Bathwater: The Muscular Basis for Register Adjustment', *Journal of singing*, 80(5), pp. 543–552. DOI: 10.53830/sing.00042

Moniz, J. (2023) 'Building Versatile Voices', *Journal of singing*, 80(1), pp. 63–66. DOI: 10.53830/GGGN2144

Mornell, A. and Wulf, G. (2019) 'Adopting an External Focus of Attention Enhances Musical Performance', *Journal of research in music education*, 66(4), pp. 375–391. DOI: 10.1177/0022429418801573

Nelson, R. (2022) *Practice as Research in the Arts*. 2nd edn. Palgrave Macmillan.

Oram, D. (2015) 'Research and practice in Voice Studies: searching for a methodology', *Voice & speech review*, 9(1), pp. 15–27. DOI: 10.1080/23268263.2015.1059674

Pilegaard, N.H.S. and Philipsen, H. (2023) 'A Method Off the Beaten Track: Refining Creative Writing Process through Practice-led Research', *Qualitative studies*, 8(1), pp. 162–193. DOI: 10.7146/qs.v8i1.136805

Read, J. (2021), "Defining the Key Voice Qualities in Musical Theatre- Belt, Mix and Legit: A Review of Literature". Available at: <https://www.scribd.com/document/670243645/Defining-the-Key-Voice-Qualities-in-Musical-Theatre-Mix-and-Belt> (Accessed: 10 November 2025)

Robertson, S. (2025) 'Acting and the Imagination as Pedagogical Tools Grounded in Scientific Knowledge', *Journal of singing*, 81(4), pp. 399–404. DOI: 10.53830/sing.00111

Roll, C. (2019) 'The Female Broadway Belt Voice: The Singer's Perspective', *Journal of singing*, Vol.76 (2), p.155-162. Available at: <https://research-ebSCO-com.ezproxy.uwtsd.ac.uk/c/onvpsy/search/view/absu7cvhrf?db=eue> (Accessed: 12 October 2025)

Rosenberg, M. and Leborgne, W. D. (2021) *The Vocal Athlete: Application and Technique for the Hybrid Singer*. 2nd edn. Plural Publishing, Inc.

Rowley, J. (2003) 'Action research: an approach to student work based learning', *Education & training (London)*, 45(3), pp. 131–138. DOI: 10.1108/00400910310470993

Sheik, D. and Sater, S. (2006), *Spring Awakening* [Musical Score]. Hal Leonard.

Silva, L. S. (2022) 'Bossa Nova and Beyond: Brazilian CCM Styles and the Hybrid Singer', *Voice & speech review*, 16(3), pp. 304–314. DOI: 10.1080/23268263.2022.2042053

Spivey, N. and Saunders Barton, M. (2021) *Cross-Training in the Voice Studio: a balancing act*. 1st edn. Plural Publishing, Inc.

- Strandberg-Long, P. (2019) 'The reaction in counter-action: how Meisner technique and active analysis complement each other', *Stanislavski Studies*, 7(1), pp. 95–108. DOI: 10.1080/20567790.2019.1576114
- Sudirman, S. A., Reza, F. A., Yusri, N. A., Rina, R. and Bah, M. (2023) 'Putting Off Until Tomorrow: Academic Procrastination, Perfectionism, and Fear of Failure', *International journal of Islamic educational psychology*, 4(1), pp. 136–153. DOI: 10.18196/ijiep.v4i1.17576
- Sundberg, J., Salomão, G.L. and Scherer, K.R. (2021) 'Analyzing Emotion Expression in Singing via Flow Glottograms, Long-Term-Average Spectra, and Expert Listener Evaluation', *Journal of voice*, 35(1), pp. 52–60. DOI: 10.1016/j.jvoice.2019.08.007
- Tan, M. and Koh, T.S. (2023) 'Learning to become ignorant: Improving the quality of epistemic knowledge in science education', *Science education (Salem, Mass.)*, 107(1), pp. 9–27. DOI: 10.1002/sce.21753
- Treinkman, M. (2022a) 'Focus of Attention in Voice Training', *Journal of voice*, 36(5), p. 733.e1-733.e8. DOI: 10.1016/j.jvoice.2020.08.035
- Treinkman, M. (2022b) 'Focus of Attention in Voice Training and Performance: Applications to the Voice Studio', *Journal of singing*, 79(1), pp. 21–28. DOI: 10.53830/iwvf2556
- Wilson, K. (2023) 'Practical Approaches In Coordinating Registration for the Cis-Gender Female Musical Theatre Singer', *Journal of singing*, 80(2), pp. 185–192.
- Wilson, L.C. (2021) 'Bel Canto to Punk and Back: Lessons for the Vocal Cross-Training Singer and Teacher', *Voice & speech review*, 15(3), pp. 330–341. DOI: 10.1080/23268263.2021.1889245
- Winnie, B.J. (2017) 'Bridging the gap between classical and contemporary vocal technique: implications for the choral rehearsal', *Voice & speech review*, 11(1), pp. 55–71. DOI: 10.1080/23268263.2017.1370803
- Winter, D. (2021) 'Voicing a Practitioner Research Methodology: Further Framing the Conversation', *Voice & speech review*, Vol.15 (1), p.76-88. DOI: 10.1080/23268263.2020.1843270
- Wulf, G. (2016) 'Why did Tiger Woods shoot 82? A commentary on Toner and Moran (2015)', *Psychology of sport and exercise*, 22, pp. 337–338. DOI: 10.1016/j.psychsport.2015.05.006
- Young, A. (2019) 'Mixed Up and Upside Down', *Journal of singing*, Vol.76 (2), p.137-153. Available at: <https://research-ebsco->

[com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/4on7zjoasv?route=details](http://com.ezproxy.uwtsd.ac.uk/c/onvpsy/viewer/pdf/4on7zjoasv?route=details) (Accessed: 30  
October 2025)

## **Appendices**

### **Appendix A**

#### Artefact

Two Mix exercises:

- *That's mine*
- *Blaa blaa blaa*

Two Covered exercises:

- *Haunted House*
- *Doris speaking whale*

# Teaching resource

*Four exercises to train Mix and  
Covered timbres with Meisner  
technique-inspired prompts*

# That's mine (Mix)

Contempt

Partner's proposed objective: keep object

Student

That's mine! That's mine! That's mine! That's mine! That's mine!

Partner

What? Yours? Ex cuse me? You serious?

I question you

I dare you

S.

That's mine! That's mine! That's mine! That's mine! That's mine!

P.

It's not! It's mine! Nice try! Boo hoo! Wait.

I challenge you

I mock you

I manage you

S.

That's mine! That's mine! That's mine! That's mine!

P.

Al right So nervous! Why the fuss? Not rea lly!

I manage you (cont.)

I judge you

I discredit you

S.

That's mine! That's mine! That's mine! That's mine! That's mine!

P.

Nonsense! O kay! Enough!

I discredit you (cont.)

I soothe you

Alternative Dramatic Actions to improvise: I scold you (You brat!); I discipline you (Time out for you!); I deceive you (Let's solve this!)

# Blaa blaa blaa (Mix) (Adapted from Sheik and Sater, 2006)

Partner's proposed objective: control naughty Student

## Contempt

Student

Partner

Blaa blaa blaa blaa blaa blaa blaa blaa blaa - blaa blaa blaa blaa

Bb5 F/A

5

S.

P.

I caution you Listen to me.

Blaa blaa blaa blaa blaa blaa blaa blaa blaa - blaa blaa

Absus2 Gm

9

S.

P.

I warn you That's not nice!

Blaa blaa blaa blaa blaa blaa blaa blaa blaa - blaa blaa blaa blaa

B5 F#/A#

13

S.

P.

I soothe you O kay, let's re set!

Blaa blaa blaa blaa blaa blaa blaa blaa blaa - blaa blaa - blaa blaa

Asus2 G#m

17

S.

P.

I denounce you That's not what I meant!

Blaa blaa blaa blaa blaa blaa blaa blaa blaa - blaa blaa blaa blaa

C G/B

21

S.

P.

I confront you That's it, stop it now!

Blaa blaa blaa blaa blaa blaa blaa blaa blaa - blaa blaa

A#sus2 Am

I control you Enough enough!

25 D $\flat$

S. 

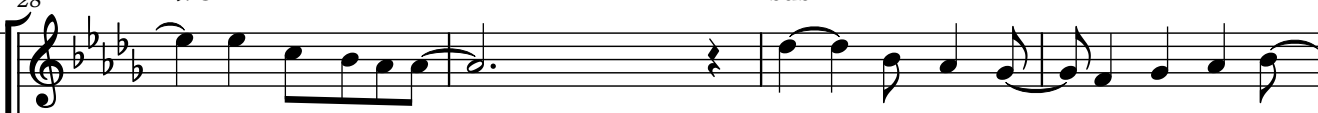
P. 

Blaa blaa blaablaa blaa blaa blaa blaa blaa-

Are you e ven lis tening?

I admonish you

28 A $\flat$ /C B $\flat$  sus2

S. 

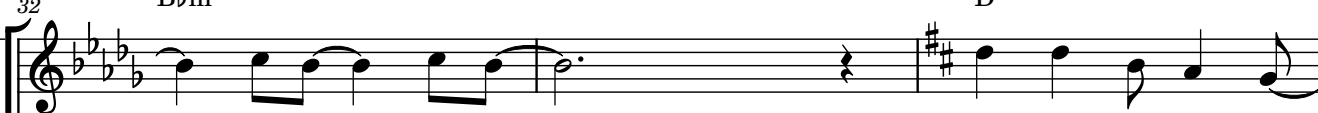
P. 

- blaa blaa blaa blaa Blaa blaablaablaa blaablaablaa blaa-

You'll be removed!

I threaten you

32 B $\flat$  m D

S. 

P. 

- blaa blaa - blaablaa Blaa blaa blaablaa blaa

Look at yourself! Blaa blaa blaablaa blaa-

I caricature you

35 A/C $\sharp$  C sus2

S. 

P. 

blaa blaa blaa blaa - blaa blaablaa blaa Blaa blaa blaablaa blaa

- blaa blaa blaa blaa blaa blaablaa blaa Blaa blaa blaablaa blaa

39 B m

S. 

P. 

blaa blaa blaa blaa - blaa blaa - blaa blaa

blaa blaa blaa blaa - blaa blaa - blaa blaa

# Haunted House (Covered)

Partner's proposed objective: unmask the ghost

## Ghostly sound

Student

Partner

Fm F#m Gm

Wo oo oo Wo oo oo Wo oo oo

Who's there? Stop that!

I interrogate you I command you

6

S.

P.

G#m Am

Wo oo oo Wo oo oo

Go a way! Who's this?

I command you (cont.) I test you

10

S.

P.

Bbm Bm

Wo oo oo Woo oo oo

You're not scaring me! Please stop! You've

I convince you I beg you I beg you (cont.)

14

S.

P.

Cm

Woo oo oo

had your fun!

Alternative Dramatic Actions to improvise: I disregard you ("No one's here!"); I ridicule you ("Oh so scary!"); I berate you ("Go away!")

# Doris Speaking Whale (Covered)

Partner's proposed objective: trap Student

Both parts singing like whales

Student

Partner

We - need to fi - nd his son

Wha at?

E<sub>b</sub>

I investigate you

S.

P.

fi - nd his son

Wha at?

Wha at?

E

I comfort you

I lure you

S.

P.

We - need to fi - nd his son

Wha at?

F

G<sub>b</sub>

I chastise you

Alternative Dramatic Actions to improvise: I charm you; I help you; I engulf you; I confuse you