

Module 1 BMPF7047D

# How Do We Take Current Knowledge And Practice Around Vocal Registration And Apply It To Trans Women's Voices In A Gender Affirming Way?

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# How do we take current knowledge and practice around vocal registration and apply it to trans women's voices in a gender affirming way?

## Introduction

Training singers to confidently navigate vocal registers, particularly the transition from M1 (chest voice) to M2 (head voice), is an essential part of developing vocal control, evenness of tone, and an overall technique that supports the long term vocal health and vocal confidence of the singer (Elbarougy, 2019; Titze, 1994). *Vocal registration* refers to the distinct patterns of vibration within the vocal folds that create both acoustic and perceptual differences in tonal quality (Roubeau et al., 2009; Titze, 1994). *M1*, often referred to as *chest voice*, is characterised by a thicker and shorter vocal fold vibration with greater subglottic pressure resulting in lower formant frequencies and increased energy in the lower harmonics (Deuster et al., 2016; Elbarougy, 2019; Titze, 1994). This gives the chest voice its typically perceived quality of sounding rich and full (Cai, 2019; Elbarougy, 2019; Roubeau et al., 2009). *M2*, on the other hand, is characterised by thinner and longer vocal fold vibrations with less subglottic pressure resulting in higher formant frequencies and reduced harmonic energy (Roubeau et al., 2009; Titze, 1994). This gives the head voice its light and airy quality that it is typically associated with (Cai, 2019; Roubeau et al., 2009).

For trans women singers, learning to navigate this vocal register change is a key part of developing that same control but also in shaping a vocal presentation that aligns with their gender identity and the subsequent benefits of that to their social and emotional wellbeing (Gumble, 2019; Nolan et al., 2019; Sauerland, 2018). *Vocal feminisation* is a core part of that journey and is a process by which the trans woman seeks to create a perceptibly feminine voice profile (Conroy, Karcher and Pasternak, 2022; Gelfer and Van Dong, 2013; Kim, 2020). This process generally involves raising the fundamental frequency of the voice, adjusting resonance, and changing the overall vocal quality to emulate that of a cisfemale voice (Cai, 2019; Gelfer and Van Dong, 2013; Kim, 2020; Leyns et al., 2021). *Fundamental frequency* is the lowest frequency of a voice, what we would more commonly refer to as its pitch (Cai, 2019; Hardy et al., 2020; Titze, 1994) whereas *resonance adjustments* can help shift the tone of the voice by changing where the sound vibrates within the vocal tract (Cai, 2019; Gumble, 2019; Guzmán et al., 2013). These objectives present a unique intersection between the technical aspects of

navigating the vocal registers and modifying the acoustic profile of the voice in order to support the wider goals of trans women singers and the relationships they have with their voices and gender identity (Gumble, 2019; Nolan et al., 2019; Sauerland, 2018).

As a result, vocal coaches working with trans women must balance their expertise in the technical demands of this process with the ability to create a supportive and inclusive learning environment that recognises the singer's gender identity and the emotional impact of the work in hand (Accetta, 2022; Gumble, 2019; Sauerland, 2018). *Gender affirming care* refers to an approach that encompasses this and goes beyond conventional pedagogy to demonstrate a deep understanding of how technique and identity intersect (Gumble, 2019). Voice coaches must be able to create an environment where the singer feels comfortable to explore their vocal identity whilst building their confidence in the technical mastery of singing (Accetta, 2022; Garrett and Palkki, 2021). This requires the ability to adapt traditional pedagogical approaches to suit the individual needs of the singer (Rooney, 2016).

## **Rationale**

As a vocal coach, my growing number of voice students who identify as trans women has made me increasingly aware of the quite unique challenges they face when learning how to navigate vocal register transitions. Especially the M1 to M2 transition, where the change in vocal quality can be significantly pronounced in untrained voices that have been through male puberty (Kim, 2020). Proficiency within navigating this transition is fundamental to developing vocal control and consistency for any singer but for trans women it also carries a significant emotional weight due to the intrinsic connection between voice and gender identity (Nolan et al., 2019). This experience taps into my personal and professional values and desire to always support and encourage the authentic self. It has driven me to take a closer look at my current pedagogical knowledge around vocal registers and to explore how I can adapt and expand this knowledge to provide instruction that is not only effective but gender affirming (Sauerland, 2018).

As a cisgender woman working with trans women singers, I am profoundly aware of the ethical considerations I must take into account when providing gender affirming voice care. Trans voice pedagogy is a growing area of study and there are an increasing number of trans singers who are engaging in training with vocal coaches and singing teachers (Accetta, 2022; Gumble, 2019; Sauerland, 2018). The 2021 UK census reported that just 0.5% of the population at large were transgender (Office of National Statistics, 2021) a number which has been contested by authors

like Biggs (2024) who suggests due to unclear census questions on gender that this already low figure is actually inflated and from which we can reasonably assume the population of transgender vocal coaches is similarly low; many trans women are therefore likely to be training with cisgender vocal coaches like myself. I believe this creates an implied duty of care for cisgender coaches to make certain their teaching practices are inclusive, supportive, and positively recognise and affirm the gender identities of their students (Oates & Dacakis, 2015).

In choosing to focus on this area of study, I must work to increase my awareness of unconscious biases around gender identity and the cisnormative assumptions that can unintentionally reinforce gender dysphoria (Garrett and Palkki, 2021). By seeking to expose these potential blindspots, I commit myself to creating a safe space where trans women can explore their voices and build the confidence and technical mastery that will allow them to connect to their authentic vocal identity in a gender affirming way (Azul & Quoresimo, 2022). This requires me to reflect upon and adapt my teaching methodologies to make sure each lesson aligns with a gender affirming approach.

One of the ways in which I will do this is to apply Schön's Reflective Practice Model to my teaching (1983) alongside Brookfield's Critical Reflection Model (1995) to help identify cisnormative biases. Schön's model utilises *reflection-in-action*, making adjustments in real-time, and *reflection-on-action*, analysing and making improvements after the lesson (Comer, 2016; Mintz, 2016; Anderson, 2019). This is a process I have used intuitively before formalising it in my academic practice so I can already understand and appreciate how this model will help me balance the technical demands with the emotional needs of my trans women students.

During the reflection-in-action, there could be an instance where a particular exercise I am using to work on blending the transition from M1 to M2 isn't producing the desired outcome, either because it's not the most appropriate for the student or is making them uncomfortable somehow. I can modify it on the spot as a result of reflecting in real-time on the feedback (verbal and non-verbal) from my student (Accetta, 2022; Schön, 1983). This means I can create a teaching environment that is responsive and supportive of the student's individual needs (Garrett and Palkki, 2021). Reflection-on-action will allow me to evaluate after each lesson what worked well and identify areas for improvement (Schön, 1983).

Further to this, using Brookfield's (1995) model will ensure that I reflect not only on the efficacy of my teaching but also on identifying cisnormative biases by viewing my practice through four critical lenses: the self, the student's point of view, my colleagues' experiences, and the current literature. By self-reflecting critically, I can begin to identify and counter cisnormative expectations within my own pedagogical frameworks (Azul and Quoresimo, 2022; Schön, 1983). Looking at my teaching from the point of view of my student can help me understand how the traditional binaries used in voice pedagogy could impact the vocal development and personal wellbeing of my trans women students (Azul & Quoresimo, 2022; Garrett & Palkki, 2021). I can then use Schön's (1983) reflection-in-action to assess how my student is responding to my approach and choice of language in real time, allowing me to make immediate adjustments where necessary (Accetta, 2022; Gumble, 2019). I can later reflect-on-action to truly begin deepening my understanding of how my trans voice students experience my teaching (Gumble, 2020; Schön, 1983).

Discussing my work with my peers, tutors, and colleagues will give me further insight by way of additional perspectives which is critical in helping me identify unconscious bias and developing inclusive practices that go beyond the cisnormative assumptions of traditional vocal pedagogy (Azul and Quoresimo, 2022; Sauerland, 2018). The final lens of reflecting on current literature regarding trans voice pedagogy such as Azul & Quoresimo (2022) and Palkki & Caldwell (2018) helps give a theoretical grounding to my reflective practice. I think such literature is challenging cisnormative assumptions and provides vocal coaches such as myself a foundation from which to build a more inclusive, gender affirming professional practice.

Already this process has helped me identify key areas to centre my research and learning on such as updating my knowledge of exercises for vocal registration transitions, expanding my knowledge of vocal feminisation strategies, and learning more about the lived experiences of trans women so that I can develop a strategy that goes beyond cisnormative practices within voice pedagogy. This continual reflection will help me refine my methodology to provide a gender affirming experience that is both effective and supportive.

In order for me to understand and critically evaluate the current literature on vocal registration through the lens of gender affirming care, I have chosen to implement van Manen's hermeneutic phenomenological framework (van Manen, 1990). This framework is centred on the idea that lived experience, the subjective way in which a person feels about and interprets events in their

life, is integral to understanding how they make sense of their world (van Manen, 1990; Garrett and Palkki, 2021; Gumble, 2020). This framework will allow me to not only explore the technical aspects of navigating vocal register changes alongside those of vocal feminisation but also consider the personal accounts of trans women and how current knowledge and practice interacts with the emotional and social aspects of trans women's lives (van Manen, 1990; Gumble, 2019; Nolan et al., 2019). To stay aligned with this framework, I will keep a reflective journal of my initial interpretations of the literature with an awareness for potential bias. I will also analyse personal accounts of trans women's experiences so that I can keep their perspective central to the review process. The reflective nature of this critical evaluation model will compliment my chosen reflective practice models well, assisting me in the creation of a holistic approach to answering the question this assignment sets forth.

I will include focus on recent studies regarding vocal registration, especially from a pedagogical, acoustic, and physiological perspective, excluding irrelevant topics such as vocal registration in animals. Where studies on trans women are limited, I will include relevant cisgender studies that show potential to inform a gender affirming approach. I will prioritise peer-reviewed research from the last 15 years and include key grey literature that reflects trans women's experiences.

## **Vocal Registration and Trans Women's Voices**

The transition between M1 and M2 presents different challenges for the singer depending on whether or not the individual has been through male puberty (Deuster et al., 2016; Kim, 2020; Titze, 1994). During male puberty, the release of increasing levels of testosterone significantly alters the anatomy of the voice (Deuster et al., 2016; Leyns et al., 2021). The vocal folds themselves begin to thicken and lengthen, increasing in mass, and the larynx also becomes much larger (Deuster et al., 2016; Kim, 2020). This creates a much deeper and fuller sounding chest register (M1) and the resulting fundamental frequency of the voice is lowered (Deuster et al., 2016; Elbarougy, 2019). This increased mass of the vocal folds requires greater subglottic pressure in order to maintain phonation which in turn can cause strain as a singer moves into their head register (M2) where the vocal folds are required to lengthen and thin out to attain higher pitches (Roubeau et al., 2009; Rapoport et al., 2023). This distinct shift in the state of the vocal folds can create an abrupt change in tone, difficulty maintaining consistent resonance, and

resulting in a less smooth transition between vocal registers when compared to voices that haven't been through male puberty (Deuster et al., 2016; Roubeau et al., 2009).

Trans women who have been through male puberty also have these challenges compounded by their goals to achieve a vocal acoustic profile that aligns with their gender identity (Gumble, 2019; Kim, 2020; Nolan et al., 2019). Having more vocal mass to control during a register shift makes achieving a lighter, more feminine sounding voice particularly challenging as this goal of vocal feminisation contrasts against their vocal anatomy (Gelfer and Van Dong, 2013; Rapoport et al., 2023). It is worth at this point to note that although some trans women will be undergoing hormone replacement therapy (HRT) and will experience other feminising effects of this treatment, it will not alter, or cause to be more feminine, any physical or acoustic aspect of the voice (Deuster et al., 2016; Leyns et al., 2021; Nolan et al., 2019). The permanent effects of testosterone on the vocal mechanism must therefore be addressed through vocal training (Rapoport et al., 2023). That being said, there are significant shortcomings in the literature for the vocal training of trans women singers.

Current literature and practice that centres on cisnormative approaches do provide some foundational insights that can be appropriated for training trans women's voices but there is little exploration of how these techniques can be adapted to work synergistically in support of the student's voice goals (Azul and Quoresimo, 2022; Gumble, 2019; Sauerland, 2018). This gap signified to me the importance of critically evaluating current knowledge and practice, synthesising strategies with the voice goals of trans woman singers at their core, and reflecting on the efficacy of their implementation within my own practice.

Reflecting on the needs and goals of the trans woman student in contrast to the physiological challenges, I identified two main technical goals from which to begin devising an appropriate technical strategy. These are, namely, regulating the subglottic pressure when transitioning from M1 to M2, and raising the fundamental pitch of the voice without increasing vocal strain.

When looking at managing subglottic pressure, I used reflection-on-action to analyse past coaching of cis male singers as a starting point for my research and development of exercises that could be of benefit to my trans women students who have been through male puberty. As both these student populations have larger vocal fold mass (Deuster et al., 2016; Kim, 2020; Leyns et al., 2021), it stands to reason that I would be able to use similar exercises but modify

them and present them in a gender affirming way to my trans women students. Exercises that have proven beneficial, in my experience, to singers generating too much subglottic pressure are lip trills, sirens, and straw phonation exercises (Guzmán et al., 2013; Rapoport et al., 2023; Robieux et al., 2015). Lip trills offer a way to soften and steady the airflow reducing the build up of subglottic pressure during the M1 to M2 transition (Robieux et al., 2015) and sirening helps singers to develop more flexibility and control over the laryngeal movements during this transition (Roubeau et al., 2009; Robieux et al., 2015; Titze, 2006). It is perhaps straw phonation, however, that I have had the most success with when it comes to regulating and balancing the pressures required for thinning the vocal folds as the singer moves from M1 to M2 (Rapoport et al., 2023).

As I looked to consider exercises for trans women wanting to maintain a feminine tone throughout their range, I used reflection-on-action once again to analyse the strategies I employ with cis female singers when navigating M1 to M2. Although cis women do not need to manage such a large change in vocal mass between M1 to M2 (Deuster et al., 2016; Kim, 2020; Titze, 1994), they do usually need to focus on balancing nasal and oral resonance in order to navigate this register transition smoothly (Cai, 2019; Kim, 2020). Slides and sirens on sounds like “ee” and “ng” can help the singer partially open the nasal port and start to build more consistency in their resonance and sound across the change from M1 to M2 (Kim, 2020). The focus on this balanced resonance can assist in raising the fundamental frequency of the voice and keeping the tone light and bright; qualities typically associated with a more feminine sound (Gelfer and Van Dong, 2013; Nolan et al., 2019).

Combining the exercises for subglottic pressure regulation and balancing resonance gave me a solid foundation to begin refining a strategy that would be effective at supporting and achieving the goals of my trans women singers. By giving my students exercises like straw phonation to assist them in balancing glottic pressures and feeling more in control of the process of thinning the vocal folds, it started to build their confidence and increase their trust in me as their vocal coach. This was a great springboard into being able to explore pitch and resonance freely.

## **Gender Affirming Voice Care in Vocal Pedagogy**

With a rise in awareness and visibility of trans and non-binary individuals, gender affirming voice care has been highlighted as a vital aspect of voice pedagogy (Accetta, 2022; Gumble, 2019;

Sauerland, 2018). The primary objective of gender affirming voice care is to go beyond vocal technique and integrate the emotional and psychological aspects of the voice, in particular its relationship with gender identity, so that we may create a comprehensive pedagogical framework that is inclusive and supportive of each individual student's gender identity (Accetta, 2022; Azul and Quoresimo, 2022). The resulting approach is one that expands beyond the gender binaries that are traditionally present in vocal pedagogy (Sauerland, 2018).

At the core of this framework is a person-centred approach, which underscores the importance of respect, inclusivity, and the use of gender affirming language (Accetta, 2022; Garrett and Palkki, 2021). The language element is quite crucial in not only creating an environment where the trans student feels safe to explore their voice but also one that reinforces and affirms both identity and lived experience (Accetta, 2022). Acknowledging the individuality of the trans experience, voice practitioners can help their students feel seen and respected (Azul and Quoresimo, 2022; Gumble, 2019). In the context of vocal training, this is especially important given the intrinsic and deeply personal connection the voice has to a person's sense of self (Garrett & Palkki, 2021).

As I continually reflect both in-action and on-action in my practice as a vocal coach, I become increasingly aware of how important it is to understand how my experience as a cisgendered coach can unintentionally shape the way I work with trans students due to unconscious bias and cisnormative assumptions. When reflecting and evaluating both current and historic vocal pedagogy, it is important to keep hold of this awareness and potential for bias as much of the documented pedagogy reinforces a gender binary (Sauerland, 2018). In the modern vocal studio, it is essential to account for and support a diverse range of vocal needs and gender identities that exist beyond this binary (Azul & Quoresimo, 2022).

Many trans women can have their vocal development negatively impacted by the psychological and emotional complexities of the voice and gender identity, and it is important not to reinforce those feelings of gender dysphoria when working with trans students (Gumble, 2019; Nolan et al., 2019; Sauerland, 2018). I've found that by creating a safe space for my students to express the emotional aspects of training their voices, we can work together more successfully to navigate the vocal challenges they face (Gumble, 2019). This aligns with what I've read in the current literature on how important it is to consider the emotional welfare of trans students in tandem with their vocal training (Gumble, 2019; Sauerland, 2018).

The person-centred approach really stands out in this regard as it directs the coach to actively listen and take into account the individual goals and lived experiences of each student (Accetta, 2022; Gumble, 2020). For example, the assumption could be made that all trans women want to affect a more female sounding voice whereas I have experienced first hand, trans women students who desire a more androgynous sound that allows them to capitalise on the variety and range that having a voice that has been through male puberty affords them. By avoiding assumptions and generalisations, and maintaining an open dialogue with my students, I am better able to tailor their training to suit their individual goals (Azul and Quoresimo, 2022).

Through studying the current literature on gender affirming care and also reflecting on the conversations I've had with my trans students in the moment and thereafter, I have made intentional changes to my approach to training trans voices. Even though I have always placed a great emphasis on the psychological and emotional aspects of the voice and identity, especially as someone who experiences selective mutism, gender identity is something that I had perhaps not given its due attention before taking on an increasing number of trans singing students. This shift in awareness places me in a more capable position to provide a supportive approach that empowers the student in their vocal development and exploration of their identity through voice (Azul and Quoresimo, 2022).

Drawing on insights from the literature, I have learnt the importance of implementing a gender affirming approach to my practice through including more gender affirming language within lessons (Accetta, 2022; Azul and Quoresimo, 2022). This, I have found, is not just a case of studying what is formally presented as gender affirming language but through open discourse about the words each individual student is comfortable with and their preferences. Other ways I have done this is to make sure I speak about the voice with as much gender neutrality as possible. For example, a student was discussing how she monitors her laryngeal movement by watching her "Adam's apple" in the mirror. Using reflection-in-action, I was able to act on the flash of discomfort I noticed as my student was speaking and proffered the term "laryngeal prominence" instead. These micro-actions of gender affirming care help to build a foundation of trust that further enables deeper exploration of the voice with confidence and acceptance (Gumble, 2020). Reflecting-on-action, I see how it could be beneficial to not just identify gendered pedagogical terms but also gendered colloquial terms and preemptively introduce gender neutral alternatives in lessons to minimise potential gender dysphoria. Please see

appendix for a further breakdown of how I integrate gender affirming care into my vocal registration strategy for trans women.

## Conclusion

Through my research and reflection on my professional practice as a vocal coach, it became abundantly clear that combining techniques for navigating vocal registers alongside providing gender affirming care is fundamental to the coaching of trans women singers. As voice practitioners, we must look beyond simply teaching the techniques required to successfully navigate vocal registers and take into account the singer's emotional and psychological needs that are such an intrinsic part of their voices and gender identity; to be gently curious about the personal experiences of our students in relation to their voices and identity so that we can create a holistic approach to training their voices in an environment that seeks to reinforce and affirm their gender identity and confident vocal self expression (Oates et al., 2023).

By continuing to implement Schön's reflective model (1983), I make sure that I maintain an adaptive and responsive approach to both the technical goals and emotional needs of my trans women students. Being able to reflect on both my real-time *in-action* adjustments and *on-action* improvements over the long term has allowed and continues to allow me to refine my strategies so that they remain technically effective and emotionally supportive. These reflections also help me to further uncover any biases or cisnormative assumptions that unintentionally shape my practice as a result of my cisgendered point of view (Gumble, 2020).

The limitations and gaps that I found in the current literature highlight the increasing need for more longitudinal and larger scale studies that specifically focus on trans singers, especially trans women. The existing research does provide some valuable insights that can be extrapolated to support a gender affirming approach to vocal registration but it doesn't remove the need for dedicated research that centres on trans women singers and the unique challenges they are presented with (Kim, 2020). Most studies on vocal feminisation only present short term data and there is little on how these approaches support trans women over the long term which I think is a vital area of study in need of further exploration (Rapoport et al., 2023).

Reflecting on my learning during this assignment, I have not only expanded my knowledge and understanding of gender affirming voice care but also my approach to voice coaching overall. The reflective process has further highlighted how important sensitivity, inclusivity, and flexible

coaching approaches are in all aspects of vocal coaching. By engaging with critical frameworks and their application, I have gained a much wider perspective on how reflective practice enables me to more effectively meet the diverse needs of my student base. It has wholly deepened my commitment to the belief that vocal coaching practices should honour and celebrate the authentic expression of the individual student and their journey.

As I move forward in my professional practice, I will continue to develop and integrate the strategies I've discussed thus far with the goal of being able to contribute to the creation of a gender affirming voice care framework for trans women singers. This includes attending further training in gender affirming pedagogy, developing my reflective practice, and keeping myself up to date with advancements in this area of research (please see appendix for my personal development plan in full). The Personal Development Plan that I have written and updated throughout the process of researching and writing this assignment will help me stay accountable and clear in my direction towards becoming an informed and knowledgeable advocate for inclusive vocal pedagogy.

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# APPENDIX A - STRATEGY FOR DEVELOPING A COORDINATED TRANSITION FROM M1 TO M2

## 1: Subglottic Pressure Management and Initial Resonance Work

Objective: Introduce subglottic pressure management and basic resonance exercises to help control register transitions.

### Vocal Exercises:

- Lip Trills on a Glide: Help regulate airflow and reduce excessive subglottic pressure during the M1 to M2 transition. This exercise prevents the vocal folds from overexerting, encouraging a smooth shift between registers (Titze, 2006).
  - Function: Supports smooth transitions by balancing airflow and pressure, which helps avoid abrupt shifts in tone.
- Humming Glides: Focus on resonance and airflow while moving through the register break, encouraging balanced resonance to keep the tone bright and connected (Gelfer and Tice, 2013).
  - Function: Enhances forward resonance while encouraging smooth register changes without tonal loss.
- Straw Phonation: Perform glides through a straw, which increases back pressure, helping to stabilise subglottic pressure and prevent tension build-up during transitions (Guzman et al., 2013).
  - Function: Encourages even vocal fold closure and reduces the pressure needed for smooth register transitions.
- Sirens on "oo" or "ee": Have the student glide from their lower to upper range while maintaining a light, consistent tone. This exercise improves vocal fold coordination and encourages smooth transitions between registers (Leyns et al., 2021).
  - Function: Develops vocal flexibility and laryngeal coordination across the range.

### Gender-Affirming Care Focus:

- Be mindful of potential dysphoria related to vocal fold thickness or tension. Affirm the student's goals of achieving a feminine voice and reassure them that progress is positive, no matter how gradual (Azul and Quoresimo, 2022; Garrett and Palkki, 2021).

## 2: Balance Resonance and Register Transitions

Objective: Develop a balanced nasal-oral resonance to maintain brightness and consistency during M1 to M2 transitions, with a focus on vocal feminisation.

### Vocal Exercises:

- Ng Sound to Vowel Transitions: Begin with an ng sound then transition to open vowels like "ee" or "ah" while sliding from chest voice to head voice. This exercise reinforces balanced resonance (Gelfer and Van Dong, 2013).
  - Function: Maintains resonance placement during register transitions, ensuring brightness and clarity in both registers.
- Humming Glides on "Mm": Humming through register shifts helps the singer maintain resonance, especially when descending from head voice to chest voice (Leyns et al., 2021).
  - Function: Strengthens resonance consistency and helps prevent the tone from dropping during downward transitions.
- Resonance Glides: Perform glides on "ee" from M1 to M2, concentrating on keeping the resonance balanced. This helps ensure the tone remains bright and feminine.
  - Function: Promotes balanced resonance and prevents tonal loss during upward transitions.
- Sirens with Focus on Balanced Resonance: Glide through the full vocal range on "oo" or "ee" while focusing on maintaining resonance. This reduces the likelihood of breathiness during transitions (Accetta, 2022).
  - Function: Builds even vocal fold coordination while reinforcing resonance placement.

### Gender-Affirming Care Focus:

- Use affirming language and allow the student to express how they feel about their vocal feminisation progress. Acknowledge their emotional experiences and provide validation (Azul and Quoresimo, 2022).

### 3: Vocal Fold Closure and Reducing Breathy Head Voice

Objective: Strengthen vocal fold closure to eliminate breathiness in the head voice while maintaining resonance.

#### Vocal Exercises:

- Gentle Vocal Fry into Head Voice: Start with gentle vocal fry (creaky voice) at a low pitch and slide up to head voice, maintaining the sense of vocal fold closure. This encourages adduction without strain (Gelfer and Tice, 2013).
  - Function: Helps improve vocal fold closure, preventing breathiness when transitioning into M2.
- Lip Trills on a Scale: Use lip trills on a five-note scale to maintain airflow control while ascending and descending. This helps regulate pressure and reduce tension (Titze, 2006).
  - Function: Supports even pressure management and prevents tension build-up during register shifts.
- Messa di Voce: Hold a single pitch, gradually increasing the volume (crescendo) and then decreasing it (diminuendo). Focus on maintaining vocal fold closure throughout the dynamic changes (Leyns et al., 2021).
  - Function: Trains the singer to sustain vocal fold closure at varying dynamics, helping to reduce breathiness in softer dynamics.
- Ng Sound to Open Vowel: Transition from ng to open vowels ("ee") while focusing on maintaining vocal fold closure and resonance. This reduces breathiness and encourages clarity in M2 (Azul and Quoresimo, 2022).
  - Function: Reinforces vocal fold adduction while keeping the resonance balanced, supporting clear tone across registers.

#### Gender-Affirming Care Focus:

- Acknowledge that breathiness in head voice can cause distress. Offer empathy and encouragement, reassuring the student that vocal fold closure is a gradual process and emphasising their progress (Garrett and Palkki, 2021).

## 4: Smoothing M1 to M2 Transitions with Combined Exercises

Objective: Smooth the transition between chest and head voice by combining pressure regulation, resonance, and vocal fold closure exercises.

### Vocal Exercises:

- Humming Glides: Glide smoothly from M1 to M2 while focusing on balanced resonance and airflow control to avoid breaks between registers (Gelfer and Van Dong, 2013).
  - Function: Balances resonance and airflow during the transition to prevent abrupt tonal shifts.
- Lip Trills: Use lip trills on ascending and descending scales to regulate subglottic pressure and ease the transitions between registers (Titze, 2006).
  - Function: Helps maintain airflow control and consistent pressure, preventing tonal shifts during the transition.
- Octave Leaps: Perform octave leaps between M1 and M2 on a vowel like "ah" or "ee," ensuring balanced resonance and vocal fold closure (Leyns et al., 2021).
  - Function: Develops the ability to smoothly navigate large register jumps while maintaining clarity and resonance.
- Descending Glides on "Ee": Glide downward from M2 to M1 on "ee," focusing on keeping the resonance balanced and avoiding breathiness (Accetta, 2022).
  - Function: Ensures smooth, connected transitions back to chest voice while maintaining bright tone and balanced resonance.

### Gender-Affirming Care Focus:

- Provide affirming feedback and emphasise patience. Recognise that register transitions are a significant vocal achievement and frame progress within the context of the student's vocal feminisation goals (Azul and Quoresimo, 2022).

# APPENDIX B - PERSONAL DEVELOPMENT PLAN

| Objective                                                                                                         | Action Plan                                                                                                                                                                                           | Timeframe                                                               | Success Criteria                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Expand understanding of vocal registration techniques specific to trans women</b>                              | Engage with the latest research on vocal registration transitions in trans women, focusing on M1 to M2 shifts.                                                                                        | Within 6 months                                                         | Demonstrate ability to adapt vocal registration techniques for trans women in lessons, showing improved register transitions and vocal consistency. |
| <b>Develop advanced skills in gender-affirming voice pedagogy</b>                                                 | Attend workshops and webinars on gender-affirming voice care and pedagogical techniques.                                                                                                              | Ongoing, with a focus on quarterly updates                              | Show a more nuanced approach to voice care that accounts for emotional, psychological, and vocal needs of trans students.                           |
| <b>Refine vocal exercises to address disconnected head voice in trans women singers</b>                           | Experiment with vocal fry, straw phonation, and resonance glides in lessons with trans women singers and adjust based on student feedback.                                                            | Ongoing, with review of progress after 3 months                         | Students demonstrate reduced breathiness and better vocal fold closure in head voice.                                                               |
| <b>Integrate resonance exercises into teaching practice for trans women</b>                                       | Incorporate resonance-focused exercises such as humming glides and ng transitions in lessons with trans women, emphasising forward placement.                                                         | Immediately, with ongoing adjustments based on student progress         | Students show improved resonance balance, particularly during M1 to M2 transitions, with brighter, forward-focused tone.                            |
| <b>Continue reflective practice using Schön's model to improve lesson effectiveness</b>                           | Set aside time at the end of the teaching day to reflect on the strategies used and adjust future lessons to better suit students' vocal and emotional needs.                                         | At the end of each teaching day, with a review at the end of each month | Improved lesson outcomes with more tailored exercises, and student feedback indicating greater satisfaction with the teaching approach.             |
| <b>Deepen knowledge in research methodologies to support evidence-based teaching practices</b>                    | Attend lectures on qualitative and quantitative research methods. Begin applying these methodologies in small-scale studies or reflective practice journals.                                          | Within the next 6 months                                                | Demonstrate ability to conduct small-scale research projects and apply findings to improve teaching strategies.                                     |
| <b>Develop expertise in neuroinclusivity and accessibility in voice pedagogy to support diverse student needs</b> | Study neurodiversity-focused literature and attend lectures/workshops neuroinclusive teaching methods. Implement these practices in lesson planning and assess their impact through student feedback. | Ongoing, review and update every 3 months                               | Improved student engagement, positive feedback from neurodiverse students. Can adapt lessons effectively for various neurotypes.                    |