



Localizing Estill Voice Training for Mandarin Musical Theatre Singing

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Abstract: The booming development of Chinese musical theatre has created an urgent demand for a scientific vocal training system tailored to Mandarin singing. This study focuses on the localized application of Estill Voice Training (EVT), a muscle-isolation-based vocal framework universally applicable across languages, for Mandarin musical theatre. Drawing on the author's performance experience, it adopts literature review, case analysis, embodied research and semi-structured interviews to explore EVT's adaptation to Mandarin phonetic features, such as plosive initials, complex rhymes, four tones. A localized training model and customized vocal exercises are constructed, offering a scientific, feasible solution for vocal teaching and stage practice, and laying a foundation for the professional development of Chinese musical theatre.

Keywords: Estill Voice Training (EVT), mandarin musical theatre, vocal localization, musical theatre singing

1. About the Research

As an imported art form, musical theatre has developed rapidly in China while facing a shortage of scientific vocal training methods adapted to Mandarin (Dong, 2021). The author, with a classical bel canto background, encountered style mismatch, insufficient vocal power and emotional expression when singing musical theatre. EVT enabled smooth style switching in English works but failed to adapt directly to Mandarin articulation. This study aims to localize EVT muscle isolation control for Mandarin musical theatre, solving technical obstacles in Legit-Belting conversion and pronunciation adaptation.

2. Research Questions and Scope

2.1 Core Research Questions

To what extent can existing EVT exercises be directly applied to Mandarin musical theatre singing, and what targeted adjustments are needed to adapt to Mandarin phonetic features?

2.2 Research Scope

Research objects include core vocal structures in EVT Legit-Belting conversion, Mandarin phonetic characteristics, and arias from *Ghost the Musical* (Chinese version) and original musical *Butterflies*. This study focuses on muscle movement rules, articulation conflicts, and localization paths, excluding other vocal systems, dialects and non-musical theatre contents.

3. Literature Review

3.1 Theoretical Foundations: Estill Voice Training (EVT)

EVT, founded by Jo Estill, unlocks voice potential through scientific muscle control (Estill et al., 2019). It decomposes vocalization into trainable physiological units for precise style switching and is widely used in musical theatre. International studies form a complete system but are English-based (LoVetri, 2018). Dong (2021) introduced EVT into Chinese musical theatre teaching, yet domestic research lacks in-depth muscle analysis and systematic models.[1-3]

3.2 Mandarin Phonetics and Singing Articulation

Language directly shapes vocal technique, pitch stability, and timbre in musical theatre singing. Correct linguistic analysis improves pitch accuracy, reduces tension, and supports consistent vocal fold closure, forming a reciprocal relationship between language and vocal technique. Traditional vocal and medical research clarifies Mandarin articulation muscle patterns but does not integrate with EVT. Earlier systems focus on single-style optimization and cannot support musical theatre's multi-style switching (Lin, 2017). Medical studies define movements of key vocal structures (Ma, 2023; Feng, 2021), but no research links these to EVT Legit-Belting requirements.[4-6]

4. Research Gap

No research integrates EVT muscle isolation with Mandarin musical theatre articulation. International EVT is English-based; domestic studies lack Mandarin-adapted Legit-Belting research. Mandarin articulation research is disconnected from EVT, and no systematic EVT training exists for Mandarin musical theatre.

5. Significance of the Research

Language is not only a communicative tool but also a determinant of vocal mechanics, pitch control, and resonance placement in singing. Well-resolved linguistic structure enhances pitch stability, Belting sustainability, and vocal consistency, while solid vocal technique enables clearer linguistic expression. Mandarin musical theatre lacks scientific vocal methods (Dong, 2021). [3]A scientific system improves stability, reduces fatigue (LoVetri, 2018), standardizes teaching and reduces experiential learning (Estill et al., 2019).[1-2]

6. Research Methods

This study uses literature review, case analysis, semi-structured interviews with vocal pedagogy experts, and embodied research with self-as-subject to complete pre-training, localized training and post-training comparison.

7. Case Analysis

Mandarin initials, finals, and tones directly interfere with pitch stability, vocal fold closure, and laryngeal position. Plosives, complex finals and tones cause vocal breaks (Liu, 2019). [7]Diphthongs and fricatives break vocal continuity; heavy consonants and nasals induce tension. Adaptations include simplifying vowels, voicing consonants, lightening initials and delaying nasal closure (Estill et al., 2019).[1]

8. EVT Adaptation Table for Mandarin Initials and Finals

Category	Issues	Original EVT	Adapted Strategies
Plosives	Strong impact, breathiness	Light Contact Consonants	Voice unvoiced; light touch pronunciation
Fricatives	Over-breathiness, voice cracks	Anterior Focus	Voice consonants; forward resonance
Nasals	Throat tension, nasalization	Velum Lift	Delay endings; lift soft palate
Single vowels	Squeezing, deformation	Vowel Stabilization	Relax tense vowels; stable shape
Diphthongs	Broken continuity	Unmodified Vowels	Simplify; postpone movement
Nasal finals	Laryngeal shifts	Laryngeal Stability	Weaken nasality; stabilize larynx

9. Localized EVT Vocal Exercises

- (1) High Tongue Position Stability
- (2) Voiced Consonant Replacement
- (3) Delayed Nasal Closure
- (4) Diphthong Simplification
- (5) High-Range Tone Adaptation
- (6) Legit-Belting Gradual Transition
- (7) Belting Breath Support
- (8) Melodic Vowel Unification

10. Challenges, Limitations and Future Research

Challenges include phonetic interference and habitual low larynx, addressed by isolated vocal exercises and visual acoustic feedback. Short training duration and individual differences are mitigated by stepwise simplification and personalized adjustment. Limitations involve small sample, short training period, narrow repertoire and limited objective measurement. Future research may include large-scale longitudinal studies, physiological measurement, style-specific models and standardized teaching modules.

11. Conclusion

This study confirms EVT's universal applicability and identifies conflicts between EVT and Mandarin phonetics. By analyzing Mandarin phonetic features, this research improves pitch accuracy, vocal stability, and Belting quality, demonstrating that linguistic optimization and vocal technique develop synergistically. A three-stage localized model and customized exercises effectively improve vocal performance. It fills the research gap and provides a scientific system for performers and educators, promoting the professional development of Chinese musical theatre.

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