

Teachers, Vocal Fatigue, and a Brief Combined Voice Routine

How do teachers with vocal fatigue experience a combined singing-pedagogy and voice-therapy routine?

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Study defence • 15-minute presentation

Why this study?

Occupational voice demand is unavoidable for music teachers

The occupational problem

Primary music teachers combine sustained speech, singing demonstrations, projection over noise and classroom management, often with limited recovery.

What current practice misses

Vocal hygiene is useful, but advice alone may not address the functional demands of unavoidable, intensive voice use. Therapy and singing pedagogy are often treated separately.

The research gap

There is limited evidence on an integrated, practical routine embedded in teachers' real working lives—and on teachers' subjective experience of using it.

Study contribution: test feasibility and perceived short-term change, while examining how the routine fits occupational reality.

Research question and analytic logic

“How do teachers with vocal fatigue experience the implementation of a combined singing-pedagogy and voice-therapy routine, and what changes do they report in vocal ease, endurance, and day-to-day workload tolerance?”

1. Experience

Can teachers understand, use and fit the routine into demanding schedules?

2. Reported change

What happens to perceived fatigue, ease, endurance and recovery after implementation?

3. Integration

Where do quantitative ratings and qualitative accounts converge, complement or diverge?

Interpretivist core + pragmatic mixed-methods elements: subjective experience is the outcome of interest.

The intervention

A structured sequence combining two traditions

Singing pedagogy

Efficient breath management, resonance balance and coordinated phonation intended to support sustainable voice production.

Clinical voice therapy

Structured phonation tasks, including principles associated with Vocal Function Exercises and semi-occluded vocal tract work.

Delivery in practice

Recorded demonstrations + written instructions; independent practice designed to be short and manageable within teachers' workloads.

Planned: 6–8 weeks → Actual analysed implementation: 1 week, due to the busy school-year period.

Methods and sample

Small-scale exploratory mixed-methods design

Participants

n = 3 primary/elementary music teachers experiencing vocal fatigue; UK, US and Slovakia.

Quantitative

Post-intervention Likert items plus 0–10 before/after ratings; descriptive statistics only.

Qualitative

Reflections from Participants 1 and 2; thematic analysis of experience, barriers and continued use.

Ethics / position

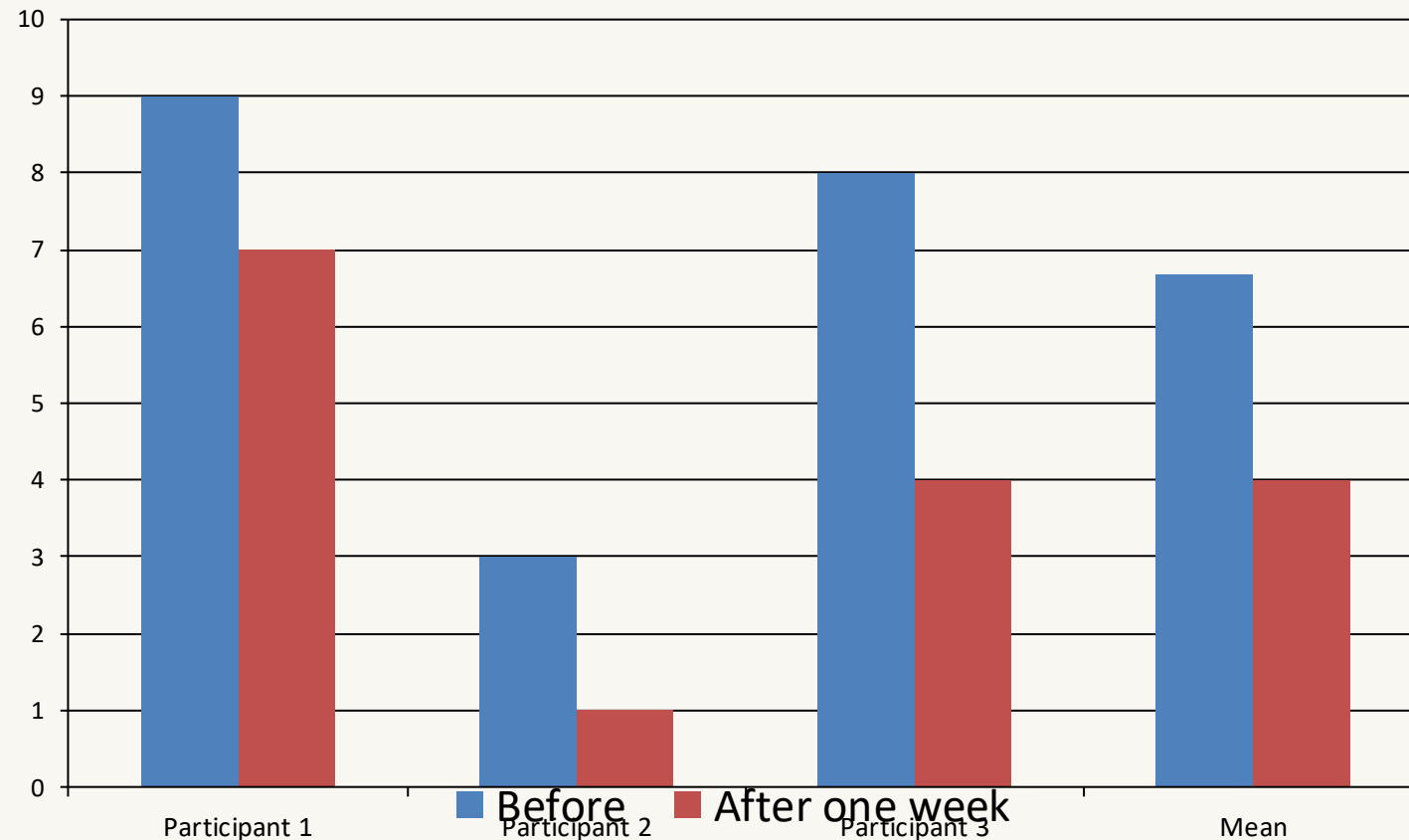
Consent, anonymisation and secure data; insider-research reflexivity used to address potential bias.

Available data were unequal across participants

P1	Quant ✓	Qual ✓	Ease baseline missing
P2	Quant ✓	Qual ✓	Complete ease data
P3	Quant ✓	Qual —	No reflection

Finding 1 — Vocal fatigue fell in all three cases

0 = no fatigue; 10 = extreme fatigue



Mean change

6.67 → 4.00

–2.67 points (40% descriptive reduction)

Consistency

Every participant reported less fatigue after one week.

Interpretation

Promising perceived short-term change—not evidence of clinical effectiveness.

Finding 2 — Endurance was positive; vocal ease was mixed

Endurance & recovery

Improved endurance: mean 4.33/5

Faster recovery: mean 4.00/5

Comfort during prolonged speaking: mean 4.00/5

These ratings point to positive early perceptions of workload tolerance.

Ease of phonation

P1: after = 7/10; baseline missing

P2: 3 → 1 (decrease)

P3: 3 → 8 (increase)

Complete-case mean: 3.0 → 4.5

The average conceals opposing trajectories; no consistent improvement can be claimed.

Defence point: retaining the contradictory P2 result strengthens, rather than weakens, the credibility of the interpretation.

Finding 3 — Feasibility was the strongest result

5 / 5

for every implementation item, from all three participants

Clarity

Exercises, recorded demonstrations and written instructions were rated easy/helpful.

Schedule fit

All rated the routine as realistically fitting their schedules.

Consistency

All strongly agreed they could complete the exercises consistently.

Continuation

All strongly agreed they would continue using parts of the routine.

Qualitative explanation: “short and sweet” • “very approachable” • “short and concise”

But feasibility ≠ effortless adherence: finding and protecting time remained a challenge.

What did the routine mean to participants?

Five themes from Participants 1 and 2

Managing fatigue

P1 used exercises when afternoon fatigue emerged and reported feeling less fatigued afterwards.

Brevity & accessibility

Short, approachable exercises supported engagement; P2 preferred lip-trill glides.

Prompt for self-care

Both accounts described the programme as a reminder to care for their own voice.

Time & consistency

The barrier was not understanding the exercises, but remembering and protecting time.

Intention to continue

Positive intention was clear, but one week cannot demonstrate sustained adherence.

The intervention functioned as both a technical routine and a behavioural cue for vocal self-care.

Integrated interpretation

What the mixed-methods design adds

Convergence

Fatigue ↓ in all three cases

Endurance ratings positive

High usefulness (mean 9.33/10)

Qualitative accounts support perceived benefit and value.

Complementarity

5/5 schedule fit coexisted with difficulty finding time.

Interpretation: the routine itself was brief and feasible, but adherence still required deliberate prioritisation.

Divergence

Vocal ease moved in opposite directions for P2 and P3.

The discrepancy remains unresolved and should not be treated as an error.

Core claim: the evidence is strongest for acceptability and perceived fatigue management, not physiological change.

Limitations — and how they bound the claims

n = 3

No generalisation to the wider teacher population; individual trajectories matter.

One week

Captures immediate perceptions only; cannot establish sustained adherence or longer-term vocal change.

Self-report

Appropriate for perceived fatigue, but cannot establish acoustic, physiological or structural change.

Missing data

P1 lacked baseline ease; P3 lacked qualitative reflection, limiting explanation of individual change.

Insider research

Contextual expertise is useful, but creates bias risk; reflexive practice and transparent interpretation are essential.

Therefore: this is exploratory evidence of perceived change and feasibility—not a treatment-effect study.

Conclusion: what can I defend from this study?

Supported by this dataset

- All three participants reported lower fatigue after one week.
- Endurance/recovery perceptions were positive.
- The routine was rated highly accessible and useful.
- Self-care structure emerged as practically important.

Not supported

- Clinical effectiveness
- Physiological recovery
- Consistent improvement in vocal ease
- Long-term adherence or sustainability
- Generalisation to teachers broadly

Next study

Larger sample + longer implementation; repeated measurements; validated Vocal Fatigue Index; acoustic/clinical measures where appropriate; retain flexibility and reminders.

A brief integrated routine shows potential as an accessible strategy for teachers' vocal self-care; the next step is stronger, longer-term testing.

Questions