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Module 6 - BMPF7329D

Perceptions and Practices Surrounding Vocal Fatigue Among
Professional Voice Users and Their Collaborators: An Exploratory
Study Incorporating a Research-Informed Educational Guide.

Project Proposal:	1211 words
Project Report:	11,859 words

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Project Proposal

1. Project Title

Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators: An Exploratory Study Incorporating a Research-Informed Educational Guide.

2. Research question

How do professional voice users and those who work with them perceive, identify and manage vocal fatigue, and how might an educational guide influence and contribute to their understanding and professional practice?

3. Context and Position

This project will explore how professional voice users and those who work alongside them perceive, identify and manage experiences of vocal fatigue within their daily professional practice. This study adopts an experiential position, focusing on participants' self-reported perceptions, experiences and interpretations of vocal fatigue rather than clinical measurements. The study will be situated within professional performance and training contexts in which use of the voice is central to practice. Vocal fatigue can be defined as:

The perceived measurable symptom that influences vocal task performance and is individual specific; it is a multifaceted concept integrating self-perceived vocal symptoms and/or physiologic deficit, which may be a result of high “vocal demand response”, high “vocal effort”, or neuromuscular deficit.

(Hunter *et al.*, 2020, p. 518)

The study will examine how participants recognise and interpret vocal fatigue, the symptoms and contributing factors they associate with the experience, and the strategies used to manage or prevent the condition. Participants will include professional voice users such as musicians and musical theatre performers, as well as students undertaking professional training for these professions. The study will also include collaborators who work closely with professional voice users, including professional musical directors and music producers. The study will explore professional contexts, analysing how they may shape perceptions and responses to vocal fatigue. Exploring these contextual influences may provide a more nuanced understanding of why individuals adopt particular strategies, and how professional environments may either support or constrain management of vocal fatigue.

Following initial data collection, participants will be provided with a research-informed educational guide addressing vocal fatigue, including commonly discussed symptoms, contributing factors,

management strategies and preventative considerations. This guide was developed prior to the present study and is incorporated into the current research as an educational resource (Howley, 2026). Participants will then reflect on whether the guide informed their understanding, provided new perspectives, identified areas of uncertainty, or highlighted potential implications to their professional practice.

While previous research has examined the prevalence of vocal fatigue within specific professional voice-user populations (Welham & Maclagan, 2004; Carroll *et al.*, 2006; Joseph, Joseph & Jacob, 2020), comparatively less attention has been given to how professional voice users and their collaborators perceive their own experiences of vocal fatigue, including their own interpretation, gaps in knowledge and responses to vocal fatigue in practice. This study therefore aims to explore these perceptions and identify areas of uncertainty surrounding the recognition, management and prevention of vocal fatigue.

4. Justification

Vocal fatigue is one of the most common conditions affecting professional voice users (Solomon, 2008). My professional experience as a vocal coach has further motivated me to explore how individuals recognise and respond to vocal fatigue within real-world professional contexts. Although professional voice users may be aware of vocal technique, maintenance, and prevention strategies, high workloads and performance demands may affect their ability to implement these approaches consistently. This study therefore seeks to explore these challenges within professional contexts and considers how an accessible, research-informed educational guide may support greater understanding of vocal fatigue among both professional voice users and their collaborators.

5. Intended Impact

This study aims to provide valuable insight into how professional voice users and their collaborators understand, recognise and respond to vocal fatigue, including perceived gaps in knowledge, areas of uncertainty and contextual factors that may influence both management and prevention. The findings may support greater professional reflection and contribute to understanding how vocal fatigue is experienced within different professional contexts.

Some participants will engage with a research-informed educational guide, allowing them to reflect on their existing knowledge and consider whether the information presented provides new perspectives or potential applications to their professional practice and lifestyle. The study does not seek to establish whether the guide produces behavioural or clinical changes; the study aims to contribute to improved collaborative practice and communication, inform the design of future training programs, and support the development of educational resources that facilitate effective management regarding vocal fatigue for professional voice users.

6. Individual Learning Outcomes

- Further develop my skills in qualitative research methods, including data collection, coding, and analysis.
- Continue to deepen my understanding of vocal fatigue, its aetiology, underlying mechanisms, related symptoms and potential management strategies.
- Strengthen my ability to translate research findings into practical guidance and educational resources for professional voice users and their collaborators.
- Explore reflective models further to strengthen my critical thinking and reflexive practice.

7. Outlined Intention

A predominantly qualitative exploratory approach will be used, complemented by descriptive quantitative data to identify patterns across demographics and participant groups.

1. Literature Review

- A narrative review of existing research surrounding vocal fatigue, its aetiology, potential symptoms, management strategies, underlying mechanisms and perceptions among professional voice users and within collaborative practice.

2. Questionnaire

- A questionnaire will be distributed to professional voice users and those who collaborate with them via Google Forms.
- The questionnaire will include both closed and open-ended questions.
- Participants will be given the option to participate in a focus group and/or individual interview.

3. Focus Group

- Multiple focus groups will be conducted via Zoom, with participants potentially grouped according to their roles, where appropriate.
- Groups will be audio/video recorded and transcribed using the service provided by Zoom.

4. Individual Interviews

- Semi-structured interviews will be conducted via Zoom.
- Interviews will be audio/video recorded and then transcribed using the service provided by Zoom.

5. Field Notes

- Brief notes may be made during focus groups and interviews where relevant, to record interactions, gestures and physical responses used by participants to illustrate their descriptions.

[illegible]

9. Ethics and Insider Research

This study involves several ethical considerations. Discussing vocal fatigue may cause emotional or psychological distress, particularly for participants who have experienced difficulties with their voice. All participants will therefore be briefed on the study's content, with information on appropriate professional support services available if needed.

As some participants may be my current clients, my professional position places me as an insider researcher. Insider research offers advantages such as trust, rapport, and strong communication; however, it can also present challenges, including potential bias, role conflict, and other ethical issues (Mercer, 2007; Saidin & Yaacob, 2016). A dual relationship with clients may also create power imbalances or influence participants' responses. To mitigate these risks, I will maintain a reflexive approach throughout the research process, considering how my professional position may influence participant responses, data interpretation and analysis. Semi-structured questions will provide consistency, while clear boundaries between my professional and research roles, participant confidentiality and voluntary participation will be maintained.

Practical considerations, such as participants' time constraints and availability, will also be addressed. Focus groups and interviews will be scheduled at convenient times, and flexibility will be offered, where possible. The study will adhere to the ethical guidance of the University of Wales Trinity St David (UWTSD), maintaining professional standards throughout and ensuring research integrity remains central to the project.

Project Report

1. Introduction

Vocal fatigue is one of the most commonly reported conditions experienced by professional voice users (Kwok & Eslick, 2019; Düzenli-Öztürk *et al.*, 2026). Its prevalence has been identified across a wide range of professional contexts, including musical theatre performers (D'haeseleer *et al.*, 2022), professional CCM (Commercial Contemporary Music) singers (Cobb, 2022), classical singers (Gomes, Moreti & Behlau, 2024), and occupational voice users such as lawyers, teachers, presenters and journalists (Zhou *et al.*, 2025). Despite its widespread occurrence, vocal fatigue is frequently normalised as an inevitable consequence of prolonged voice use (Gaskill & Hetzel, 2017) rather than recognised as a complex physiological condition that requires greater pedagogical consideration. Solomon (2008) describes vocal fatigue as an “*invisible disorder*” (p. 263), highlighting its subjective and often underestimated nature.

To date, existing literature within the professional voice field has predominantly focused on the identification of symptoms and the effects of vocal loading (Hunter & Titze, 2009; Ilomäki *et al.*, 2017; de Oliveira Lemos *et al.*, 2025), with previous research also exploring the prevalence of vocal fatigue within specific populations (Welham & Maclagan, 2004; Carroll *et al.*, 2006; Joseph, Joseph & Jacob, 2020), while less is known about how professional voice users individually understand, identify and respond to vocal fatigue in practice. However, reducing vocal fatigue to a simplistic consequence of vocal ‘overuse’ overlooks the complex biophysiological mechanisms underlying its development, alongside individual anatomical and physiological differences that shape the experience of the condition (Berardi, Whitling & Hunter, 2025). Whilst physical manifestations of fatigue in other areas of the body are often visibly recognised and responded to, vocal fatigue is often managed reactively, particularly among professionals for whom sustained voice use is essential (Sandage, 2018).

This raises questions about whether vocal fatigue should be considered an inevitable aspect of professional voice use, or whether improved understanding and management strategies may reduce its impact (Welham & Maclagan, 2003). Furthermore, limited attention has been given to those who collaborate with professional voice users, including vocal coaches, musical directors and music producers, who may have varying levels of specialist training surrounding vocal health (Flock *et al.*, 2025). This highlights the need for greater exploration of how vocal fatigue is understood and supported across professional voice environments.

This research is also informed by my own practice as a professional vocal coach working across multiple fields of professional voice use. Discussions surrounding vocal fatigue arise consistently, reinforcing both the prevalence of the condition and highlighting gaps in education surrounding its identification, understanding and management. This study will also build on my previous research and the development of a research-informed educational guide addressing the underlying

mechanisms, identification and management of vocal fatigue (Howley, 2026). The artefact has been revised to reflect current research developments since the previous iteration, while findings from this project will contribute to its continued development. The study further aims to explore participants' responses to the guide, including its potential to support greater awareness of vocal fatigue among professional voice users and their collaborators, whilst encouraging reflective thinking and research-informed vocal maintenance.

1.1 Research Question

How do professional voice users and those who work with them perceive, identify and manage vocal fatigue, and how might an educational guide influence and contribute to their understanding and professional practice?

2. Literature Review

2.1 Current Understanding of Vocal Fatigue

Vocal fatigue has been an ongoing area of study within the field of professional voice since the 1800s. In 1891, Mackenzie described "*fatigue of the voice*" as "*a sense of weakness and inability to sound the voice*", while recognising that "*the mental distress is sometimes very great*" (Mackenzie, 1891, p. 202), highlighting that vocal fatigue has long been understood as involving both physiological and psychological experiences. Despite over a century of research, uncertainty still remains surrounding the definition and nature of the condition (de Oliveira Lemos *et al.*, 2025). Although contemporary research often prioritises objective and subjective measures of vocal fatigue, the emotional and psychological impact of the condition can also influence both its development and the recovery process (Gray, 2018).

Hunter *et al.* (2020) proposed one of the most widely adopted contemporary definitions of vocal fatigue, which is frequently cited in recent literature on the condition (Nanjundeswaran & Shembel, 2022; Berardi, Whitting & Hunter, 2025). As this definition reflects the multifaceted nature of vocal fatigue, it is used as the working definition throughout this paper:

"Vocal fatigue is the perceived measurable symptom that influences vocal task performance and is individual specific; it is a multifaceted concept integrating self-perceived vocal symptoms and/or physiologic deficit."

Hunter *et al.*, 2020, p.518

2.2 Identification, Aetiology and Management

The human recognition system for illness follows a psychological structure, also known as the Common-Sense Model (CSM) of Illness Self-Regulation (Leventhal, Phillips & Burns, 2016). The

framework outlines a sequence through which perception can be considered: identity, cause, timeline, consequences, and control or cure, alongside emotional responses. The CSM offers a useful framework for understanding and managing vocal fatigue, as recognition of symptoms and beliefs surrounding its cause and management are likely to influence how professional voice users respond. This model enables consideration of aspects that may otherwise be overlooked when focusing solely on symptom recognition, including how individuals interpret their symptoms and perceive their causes and the potential consequences of vocal fatigue, which may influence their approaches to control and contribute to their emotional response to the condition (Bingaman, Mauger & Cantor-Cutiva, 2026). However, developing effective preventative behaviours extends beyond individual knowledge. Establishing a prevention culture requires changes in awareness, social environments, and supportive practices directly linked to wellbeing (Guerin, Okun & Schulte, 2014). Although literature on prevention culture remains limited, Zhou *et al.* (2025) demonstrated that occupational voice users' knowledge did not always translate into effective preventive practices, highlighting a disconnect between awareness and behaviour.

Vocal fatigue can be identified through a range of both audible and physical symptoms (Cho *et al.*, 2011; de Oliveira Lemos *et al.*, 2025), including increased vocal effort required during phonation, reduced vocal power and flexibility, lack of vocal control (Hunter *et al.*, 2020; Anand, Bottalico & Gray, 2021; Narasimhan & Sahana, 2026), laryngeal discomfort, neck or shoulder tension, and throat or neck pain (Nanjundeswaran *et al.*, 2015; Narasimhan & Sahana, 2026). The Vocal Fatigue Index (VFI) (Nanjundeswaran *et al.*, 2015) and Evaluation of the Ability to Sing Easily (EASE) scale (Phyland *et al.*, 2013) are commonly used measures of vocal fatigue and vocal function. The VFI is a standardised self-report measure designed to assess symptoms associated with vocal fatigue (Nanjundeswaran *et al.*, 2015), while the EASE scale evaluates changes in singers' current vocal function (Phyland *et al.*, 2013). However, while these tools provide valuable insight into individuals' perceived vocal experiences, the interpretation and implications of using scores require further consideration. Concerning scores may consequently cause anxiety and indicate the need for further assessment, although financial and professional barriers may prevent professional voice users from seeking support (Gilman *et al.*, 2009). Furthermore, self-report measures may also be influenced by psychological factors, as perceptions of vocal difficulties can be shaped by fear of judgment and individual interpretation of symptoms (Estes *et al.*, 2024; González-Sanvisens *et al.*, 2026). Cho *et al.* (2011) further demonstrated that vocal fatigue symptoms are not always detected by listeners or objective acoustic measures, highlighting a discrepancy between self-perception, listener perception and objective measures. Self-perception may capture how an individual experiences a condition, particularly in relation to sound and physical sensations, whereas listener perception and objective measures may not always reflect these subjective experiences. This suggests that relying on a single measure to identify vocal fatigue may overlook aspects of an individual's experience, reinforcing the importance of subjective experience and supporting qualitative exploration of how professional voice users recognise, interpret and respond to vocal fatigue.

Vocal fatigue has been associated with both physical and vocal demands, unsuitable environments, vocal hygiene and psychosocial factors (Kitch & Oates, 1994; de Oliveira Lemos *et al.*, 2025). In response to the variation in vocal fatigue symptoms across clinical, acoustic and physical measures, Shembel and Nanjundeswaran (2025) proposed five potential biophysiological mechanisms. **Neuromuscular mechanisms** suggest that repeated vocal demands may reduce the efficiency of both the intrinsic and extrinsic laryngeal muscles involved in phonation (Narasimhan & Sahana, 2026). Changes within this system may contribute to stiffness or discomfort within the laryngeal region (Shembel & Nanjundeswaran, 2025). **Metabolic mechanisms** relate to the energy required to sustain vocal production. An inefficient aerobic response may reduce the ability to meet increased vocal demands (Nesbitt, 2023), potentially presenting as an earlier onset of vocal fatigue, increased vocal effort, or a heavy sensation within the laryngeal region (Shembel & Nanjundeswaran, 2025; Narasimhan & Sahana, 2026). **Vocal fold cover mechanisms** relate directly to the superficial structures of the vocal folds, consisting of the epithelium and superficial lamina propria. Increased frequency, duration or intensity of voice use may temporarily alter the properties of these tissues, potentially contributing to reduced vocal efficiency and increased effort required to produce sound (Shembel & Nanjundeswaran, 2025). **Afferent mechanisms** relate to the sensory signals involved in voice production. Repeated or excessive use may increase receptor sensitivity, contributing to heightened perceptions of vocal fatigue or vocal effort, even when acoustic or perceptual assessments seem normal (McKenna *et al.*, 2019; Shembel & Nanjundeswaran, 2025). Finally, **central neural mechanisms** relate to the neural pathways responsible for coordinating vocal production and sensory processing. Maladaptation within these systems may occur when prolonged use or increased demands exceed the system's ability to maintain effective and efficient control. This may present as reduced vocal control for the voice user (Shembel & Nanjundeswaran, 2025). Taken together, the coexistence of these proposed mechanisms suggests that vocal fatigue may be experienced in a range of ways, depending on which mechanisms are most influential. These mechanisms may interact or influence vocal fatigue independently, contributing to variation in individual symptoms and experiences. Understanding these relationships may therefore support more targeted management and reinforce the importance of subjective measures when understanding individual experiences.

For the management of vocal fatigue, **semi-occluded vocal tract (SOVT) exercises**, particularly straw phonation, with and without water resistance (Nanjundeswaran & VanSwearingen, 2025), may improve symptoms (Nayebian *et al.*, 2025) by facilitating healthy vocal fold closure and increasing acoustic impedance (Ragan, 2018). **Hydration** is important for preventing and managing vocal fatigue through superficial methods such as steam inhalation and nebulisation, as well as systemic hydration through adequate fluid intake. Although superficial hydration methods may reduce vocal fatigue symptoms and improve voice quality (Vermeulen *et al.*, 2021), they cannot replace systemic hydration, which remains essential for maintaining optimal vocal function (Alves *et al.*, 2019). Hydration also forms part of broader **vocal hygiene practices**, alongside avoiding habits that may potentially exacerbate vocal fatigue, including irregular sleep, smoking, alcohol consumption, inadequate environmental factors and poor diet and nutritional consideration

(Ferreira *et al.*, 2019). **Laryngeal massage** is another intervention that focuses on reducing tension in the peri-laryngeal and laryngeal musculature. It may reduce muscle tension within structures including the sternocleidomastoid and supralaryngeal musculature, potentially providing immediate relief from discomfort associated with vocal fatigue (Jain & Ravu, 2024). **Voice rest** is also commonly recommended to support recovery. Absolute rest involves complete silence and is typically reserved for those recovering from vocal injury, allowing adequate time for the mucosa to heal; however, prolonged absolute voice rest is discouraged due to the potential risk of muscle deconditioning. Relative voice rest is often more appropriate for professional voice users, involving reduced unnecessary voice use while maintaining efficient phonation and technique whenever voice use is required, allowing recovery while reducing further vocal overload (Sataloff *et al.*, 2019). Finally, **vocal technique** is an important consideration in managing vocal fatigue, as developing efficient technical voice strategies may reduce unnecessary vocal effort and support vocal longevity during periods of increased demand (Gaskill & Hetzel, 2017). Similarly to the understanding of vocal fatigue, its management must be considered individually, with prevention emphasised over reactive management (Rosenberg, 2022). Many of the strategies discussed above are commonly implemented once vocal fatigue has already developed, rather than being used proactively to reduce the onset of the condition. Murali and Boominathan (2026) propose 'The Voice Eruption Volcano Model', which, although developed for teachers, may be relevant to other professional voice users because it illustrates how multiple environmental, lifestyle, and occupational factors may contribute to voice-related issues. However, the specific factors and demands experienced by teachers may differ from those encountered by musical theatre performers, musicians and students, meaning the model may require adaptation for use in other professional contexts. Nevertheless, the structure and metaphorical nature of the model, using a volcanic eruption to represent the accumulation of external factors that may contribute to a voice-related problem, could be used to reflect an individual's experience of vocal fatigue. This further reinforces the importance of recognising and addressing these factors prior to the condition occurring, rather than relying on a reactive response.

2.3 Vocal Fatigue in Professional Voice Users and Their Collaborators

The field of professional voice is vast and spans several specialised genres and subcategories (Sataloff, Sataloff & Hawkshaw, 2015). Vocal effort refers to the exertion required of a professional voice user in response to a given environmental or situational context (Hunter *et al.*, 2020). This can be understood as the interaction of vocal demand and vocal demand response. Vocal demand refers to the "*vocal requirement for a given communication scenario...independent of the vocalist's physiology, production technique, or perception of the scenario*" (Hunter *et al.*, 2020, p. 515), while vocal demand response describes how an individual responds to that demand (Hunter *et al.*, 2020). In professional contexts, high vocal effort can arise from a range of different performance demands. For example, musicians performing in smaller, crowded venues with limited amplification may experience increased vocal effort (Hoffman-Ruddy *et al.*, 2001). Similarly, session singers may be required to produce demanding vocal qualities across multiple takes (Qin & Xuejie, 2025),

while musical theatre performers may sustain intensive schedules, including eight to nine shows per week, alongside rehearsals, potentially requiring a consistent use of high vocal effort (Phyland *et al.*, 2013; Thomas & Alexander, 2025). Due to the intense vocal demands often placed on professional voice users, their vocal effort is often substantially higher than standard vocal expectations (Van Overmeiren *et al.*, 2019). These sustained high levels of vocal effort may consequently increase an individual's susceptibility to vocal fatigue (Solomon, 2008), a relationship that has been recognised since Mackenzie's (1891) recommendation that "*on days when great and sustained vocal efforts have to be made, absolute rest should be observed*" (p. 150), an approach explored in the management section of this review.

Although vocal fatigue is experienced by the individual voice user, it often occurs within wider professional contexts involving collaborators and creative teams. Musicians may work with producers to develop sync tracks or record top-line vocals without necessarily selecting the production team themselves, unlike when producing their own work (Martin, 2026). Similarly, musical theatre performers work alongside musical directors in production environments, whom they may not have previously worked with (Graham, 2022). Unlike vocal coaches, who are often engaged with separately for specialist support, collaborators remain part of the performer's working context and may influence schedules, demands and the working environment (Flynn, 2025). However, research has predominantly focused on individual voice users, with limited exploration of how collaborators perceive and respond to the condition. What remains unclear is how vocal fatigue is experienced and managed in collaborative professional environments, where wider working practices may influence vocal demands.

3. Methodology & Methods

3.1 Research Paradigm and Methodological Approach

This study is underpinned by the pragmatic paradigm. As Morgan (2014) argues, adopting a pragmatic stance extends beyond simply choosing a multi-method research design. Pragmatism represents a philosophical position that recognises the collaborative relationship between knowledge, experience and action (Dewey, 1998; Elkjaer, 2009). Due to the exploratory nature of this study, a qualitative-dominant mixed-methods approach was adopted. This design enabled an in-depth exploration of participants' lived experiences, interactions and individual perceptions of vocal fatigue (Mason, 2006), while incorporating quantitative data to provide contextual insight. Mixed-methods research is suited to investigating complex phenomena, as integrating qualitative and quantitative data allows for a more comprehensive analysis and understanding of the topic (Creswell & Creswell, 2017). Given the multifaceted nature of vocal fatigue (Cantor-Cutiva, Maxfield & Hunter, 2025), this approach was considered the most appropriate for addressing the study's aims. Qualitatively dominant research also presents methodological challenges regarding

researcher bias, assumptions and the interpretation of participant responses and accounts. Meyer and Goss (2024) emphasise the importance of intellectual humility, encouraging researchers to prioritise context and approach qualitative inquiry from the position of participants educating the researcher, rather than seeking to confirm preconceived opinions.

3.2 Research Design, Participant Selection and Methods

Ethical approval was obtained before commencement of the research process, and the completed and signed form is provided in Appendix A. The research process began with a narrative literature review to establish existing evidence, identify gaps and highlight areas requiring further exploration. A narrative review was chosen for its ability to synthesise existing literature, retain contextual detail and support exploration of complex topics (Fletcher, Davidson & Krause, 2020; Winter, 2022). A systematic literature review was also considered due to its ability to provide a rigorous and transparent synthesis of evidence to address a clearly defined research question (Nightingale, 2009; Xiao & Watson, 2019), but was not considered appropriate for the broad, multidisciplinary, experience-based nature of the research. Choosing a narrative approach provided greater flexibility in exploring the continuously developing and complex phenomenon of vocal fatigue; however, this meant that the review was less reproducible and standardised than a systematic approach. Literature searches used relevant search terms and Boolean operators across academic databases to identify relevant peer-reviewed literature (Appendix B).

The literature review informed the development of a questionnaire comprising open- and closed-ended questions. The CSM, as previously discussed (Leventhal, Phillips & Burns, 2016), further influenced the thematic structure of the questionnaire, offering a sequence that explored identification, potential causes, symptoms, management or strategies for control and emotional responses to the condition. Open-ended questions allowed participants to describe their perspectives and experiences in their own words, while closed-ended questions enabled the collection of standardised data (Goddard & Villanova, 2006; Lee, 2006). The questionnaire was administered via Google Forms, enabling online distribution and branching between question sections (Jaiswal, 2024). Participants were directed to role-specific questions to reflect differences in professional contexts. The full questionnaire is provided in Appendix C.

Initially, the proposed participant population included professional musical theatre performers, professional musicians, students studying a voice-based degree for a minimum of two years, and professional collaborators, including musical directors, music producers and vocal coaches. Vocal coaches were subsequently excluded due to variation in the professional definition of the role, training and qualification pathways, which risked reducing consistency within the participant group (Gill & Herbst, 2016; Norton, Ginsborg & Greasley, 2019). While this exclusion supported consistency, it also narrowed the range of professional perspectives considered within the study, as potentially specialist perspectives from vocal coaches were not captured. Professional musical theatre performers were required to have worked professionally within the previous year, which,

given the irregular nature of professional musical theatre employment (Fenton, 2022), was considered an appropriate timeframe (Clarke, Fiebig & Gerdtham, 2008). Professional musicians were defined as individuals working regularly within professional music contexts, and students were required to have completed a minimum of two years of voice-based training, ensuring participants had sufficient experience of training requirements and demands. Music producers and musical directors were required to work regularly with professional voice users as part of their occupation. Participants were recruited using criterion purposive sampling alongside snowball sampling. Criterion purposive sampling ensured participants met the predefined inclusion criteria and possessed relevant engagement with the topic of vocal fatigue (Palinkas *et al.*, 2015). Snowball sampling extended recruitment beyond my immediate professional network, increasing access to additional participants who met the selection criteria (Nyimbili & Nyimbili, 2024). A standardised recruitment message was distributed to potential participants via professional and social networks (Appendix D). The recruitment message included the questionnaire link; the first page contained the participant information sheet and consent form (Appendix E).

The final section of the questionnaire invited participants to opt in to the focus group or interview stages of the study (Appendix F). Participants were then separated according to professional role, with an initial aim of conducting ten individual interviews, comprising two participants from each role group, and two focus groups: one comprising four collaborators (two musical directors and two music producers) and one comprising six professional voice users (two musical theatre performers, two musicians and two students). These sample sizes were considered appropriate for the study's scope and timescale, whilst allowing sufficient depth of qualitative exploration (Hennink & Kaiser, 2022). Where volunteers exceeded the required numbers, stratified random sampling was used to maintain representation across each stakeholder group whilst minimising research selection bias (Stratton, 2023). The research-informed educational guide was provided in the interview or focus group confirmation email (Appendix G), allowing participants, where schedules permitted, sufficient time to engage with the resource prior to their interview or focus group.

Minor adaptations to the sampling strategy were required during recruitment. Due to limited musical director participation and scheduling constraints, only one musical director was able to complete an interview; therefore, only nine interviews were conducted. The planned professional voice user focus group was also split into two separate groups due to scheduling conflicts, one comprising musical theatre performers and students and the other comprising musicians. One of these groups subsequently became a dyad, which, although unintended, provided an opportunity for participants to engage in detailed discussion and elaborate on their experiences (Morgan *et al.*, 2013).

Individual interviews facilitated in-depth exploration of participants' individual experiences, while focus groups allowed participants to interact and build upon one another's responses. Both methods used a semi-structured format. This approach provided consistency across sessions whilst allowing participants to expand on their experiences and perspectives (Adeoye-Olatunde &

Olenik, 2021). Individual interviews lasted approximately 20 minutes, and focus groups approximately 45 minutes, providing sufficient time to explore the research aims whilst minimising participant burden (Morgan, 1997; Zavattaro & Gille, 2026). Both methods were conducted via Zoom, increasing geographical accessibility and reducing practical barriers. Online delivery also provided a more comfortable discussion environment, although potential challenges included maintaining engagement and managing technical difficulties (Falter *et al.*, 2022).

3.3 Data Analysis

Data were analysed using a qualitatively dominant mixed-methods approach, incorporating an embedded quantitative component. The primary analytical focus consisted of the qualitative interviews, focus groups and open-ended questionnaire data, which were analysed using Braun and Clarke's (2006) six-phase framework for thematic analysis. This approach was selected for its flexibility and suitability for exploring participants' experiences and perceptions, allowing themes to be developed through a primarily inductive coding process. Although the questionnaire was informed by existing literature, introducing a degree of deductive structure into its development, and the interviews and focus groups were informed by both existing literature and questionnaire responses, including the incorporation of a pre-existing guide for participant evaluation, the coding process remained primarily inductive, with codes generated directly from participant responses, rather than from predetermined categories. Saldaña's (2013) coding methods helped identify key concepts and, where appropriate, retained participants' own words in the process of developing meaningful codes. Within Braun and Clarke's (2006) framework, Saldaña's (2013) coding methods informed the development of first-cycle codes, primarily using descriptive and *in vivo* coding, alongside emotional coding where appropriate. Both coding and theme development were conducted manually using the Apple Numbers application, with coding transcripts provided in Appendices H, I and J. These codes were recorded in a master codebook before being grouped into categories and subsequently developed into themes (Appendix K). This integration of methods is consistent with the qualitative data analysis model described by Kalpokaite and Radivojevic (2019).

The embedded quantitative component consisted of the closed-ended questionnaire responses, which were analysed using descriptive statistics to provide contextual information regarding characteristics and reported experiences (Briggs Baffoe-Djan & Smith, 2019). Participants were assigned identification codes consisting of a number and their selected role, which were used throughout the analysis to maintain confidentiality and consistency (e.g., P27-MTP; see Table 1).

Identification Code	Meaning
PX	Participant number
M	Musician
MTP	Musical theatre performer
S/G	Student/Graduate
MD	Musical director
MP	Music Producer

Table 1 - Participant identification key

Schön's (1983) concept of the reflective practitioner informed the analytical process, particularly reflection-in-action and reflection-on-action. Reflection-in-action occurred during coding, as interpretations were continually reconsidered in response to the emerging data. Reflection-on-action involved reviewing these decisions following the development of categories and themes, considering researcher influence and potential assumptions. This supported an iterative and reflective approach to qualitative analysis.

3.4 Iterations of Educational Guide

Prior to this study, I developed an educational guide on vocal fatigue as part of my previous research project (Howley, 2026) (Appendix L). The guide was research-informed, developed from the available literature to support professional voice users in understanding, identifying, and managing vocal fatigue. Before use within this study, minor iterations were made to improve clarity, accessibility and presentation. These included refinements to wording, formatting, reducing text density, improving inclusivity across professional roles and highlighting guidance on when to seek professional support. No substantive research-informed content was altered.

3.5 Ethical Considerations, Researcher Positionality and Reflexivity

Due to my professional experience as a vocal coach within the specialised arts university sector and my own private practise working with professional musicians and musical theatre performers, I occupy the position of an insider researcher. My existing knowledge and experience within the field provided greater contextual understanding of participant experiences, supporting rapport and potentially facilitating deeper discussion. However, this familiarity also presented the risk of making assumptions surrounding participants' experiences or allowing prior knowledge to influence interpretation (Saidin & Yaacob, 2016). Particularly when interpreting participants' words and developing codes, my professional knowledge and experience occasionally influenced my initial interpretations. For example, when one participant described using vocal fatigue as "*a tool*" that can "*change a performance in a good way*" (P48-MP), my professional knowledge initially led me to interpret this as reflecting a lack of understanding of the potential effects of continuing to use the voice when fatigued. However, recognising that this interpretation reflected my own professional assumptions, I reconsidered the initial code and instead coded the statement as '*perception of using vocal fatigue to enhance emotion*', retaining the participants' perspective rather than imposing my own professional knowledge and judgement. This process was at times challenging and demonstrated the importance of remaining reflective throughout the study, ensuring all interpretations remained grounded in participants' accounts.

Due to the potential emotional impact associated with experiences of vocal fatigue and related vocal health concerns (Bingaman, Mauger & Cantor-Cutiva, 2026), ethical considerations were also required. The participant information sheet outlined the study's content and themes (Appendix E), enabling informed consent. Recruitment required careful consideration, particularly when

existing clients met the selection criteria. This potential power imbalance was mitigated by emphasising that participation was entirely voluntary and would not affect the existing professional relationship (Berkovic *et al.*, 2020). Participants were informed of confidentiality procedures, with data anonymised for analysis and audio/video recordings securely stored until completion of the Master's process.

4. Findings

The findings resulted in five overarching themes and associated subthemes (Figure 1; Appendix K), with participant distribution presented in Figure 2.

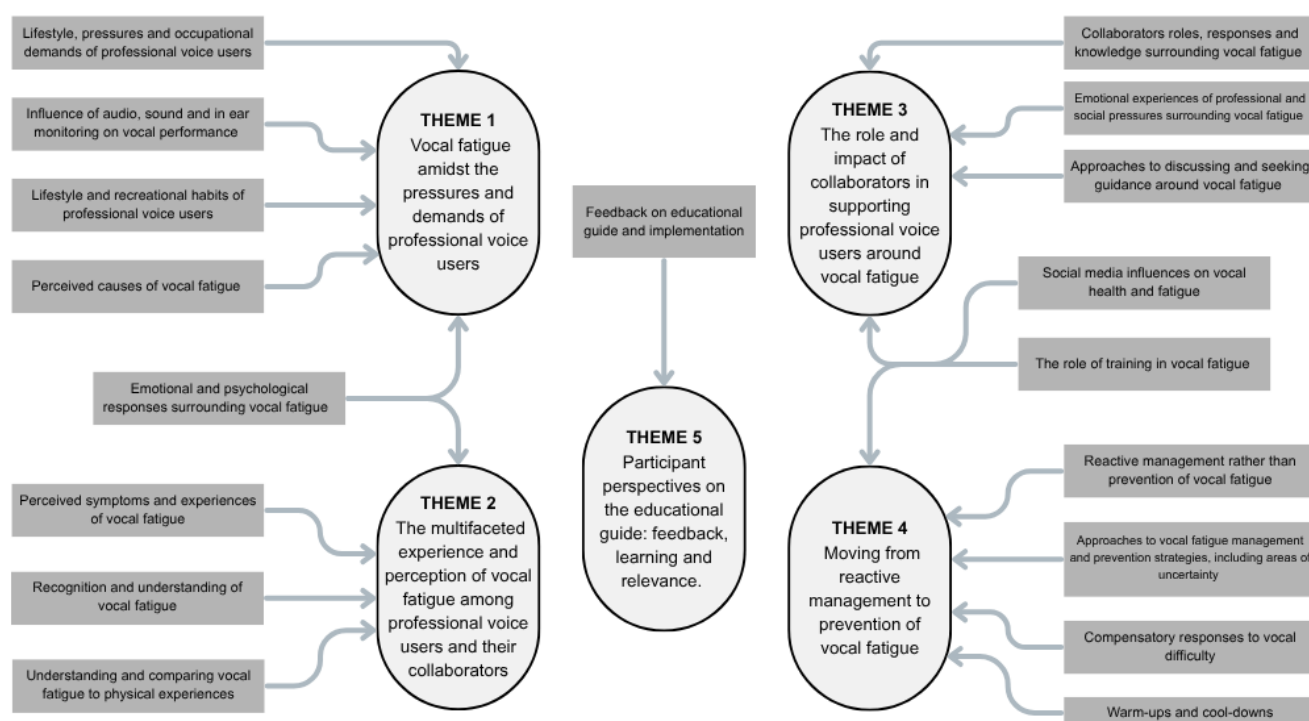


Figure 1 - Analytical process from categories to theme development.

- Professional musical director
- Professional voice user - Singer/musician
- Professional voice user - Musical theatre performer
- Professional music producer
- Student / 2026 graduate

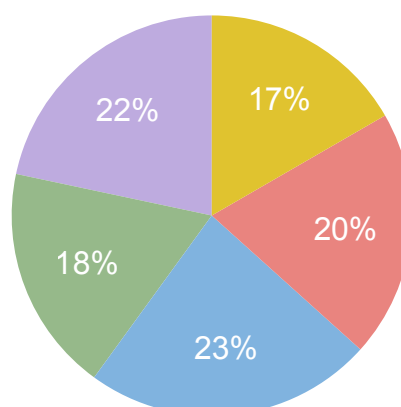


Figure 2 - Distribution of participants across participant roles.

4.1 Vocal Fatigue Amidst the Pressures and Demands of Professional Voice Users

Occupational demands & workload

Of the 39 participants who identified as professional voice users (students, musical theatre performers, and musicians), 38 reported experiencing vocal fatigue, while one participant was unsure. Participants' accounts demonstrated that occupational workload extended beyond the number of hours spent singing. Musical theatre performers described the demands of repeated performances, with one participant noting that *"obviously 8 shows a week is quite tough"*, and that *"some type of vocal fatigue is happening to me on a weekly basis"* (P9-MTP). Musicians similarly described periods of intensive work, particularly during seasonal demands such as the summer wedding season and the festive period. This suggests that repeated voice use during demanding work periods may influence an individual's perception of vocal fatigue.

Overuse and repetitive voice use were prominent within participants' accounts, particularly across recording, auditioning and rehearsal contexts. One participant described doing a full day of work and then returning home to *"doing maybe 15 takes of the same songs, trying to make it perfect"* (P49-S/G), while another noted, *"in tech, you do things over and over and over again"* (P4-S/G). These accounts highlight that weekly hours alone cannot fully represent vocal workload, as intensity and repetition influence vocal demand (Moniz, 2022), in addition to the variable and unpredictable nature of a professional voice user's workload. Participants also highlighted the demands of the material itself (von Germeten, 2023), with one participant noting fatigue as *"sometimes being an almost unavoidable result of a voice dealing with exceptionally demanding material on a repeated day-to-day basis"* (P19-M).

Financial pressures and professional expectations

Participants described situations in which financial necessity made it difficult to cancel professional commitments when experiencing vocal fatigue. One musician shared, *"unfortunately, even if I'm tired, I still have to go and do the gig to get paid"* (P12-M), while another highlighted the pressure associated with paid recording sessions, stating, *"when there's sessions that are being paid for, that's a massive stress...it has to be right"* (P8-M). This was also reinforced by a music producer who observed that *"no vocalist I've ever worked with has ever liked to turn down a paid gig... they'll come in if their voice is at top notch, or if their voice is struggling"* (P58-MP). Additional employment may further contribute to these pressures, with teaching and hospitality identified as common additional roles, both of which can involve substantial and sustained voice use (Martin & Darnley, 2024). This suggests that vocal fatigue is experienced within wider financial pressures, and prioritising vocal recovery may have immediate economic consequences for professional voice users (Berg *et al.*, 2022).

Taken together, these accounts suggest a cyclical relationship between financial pressures, professional expectations and vocal fatigue. Within this cycle, financial pressures may encourage overuse of the voice, potentially contributing to vocal fatigue, while concerns surrounding income, reputation and reliability make prioritising recovery time challenging. Participants also frequently described their voice as *“part of my identity”* (P8-M), and P49-S/G similarly identified reputation as *“the biggest fear for all performers”*. Reflecting on the proverbial quote *“you’re only as good as your last performance”*, this aligns with the findings of Portman-Smith and Harwood (2015), who identified reputation and reliability as important concerns for self-employed musicians. The present findings extend this relationship by suggesting that, for professional voice users, concerns surrounding vocal reliability may be experienced through experiences of vocal fatigue hindering their ability to meet professional and personal expectations.

These professional expectations may also have psychological consequences, with one student stating, *“I know that a performer and singer shouldn’t get fatigued”* (P31-S/G), suggesting that fatigue may be interpreted as personal failure or feeling inadequate. This psychological pressure may further contribute to the cycle, with one participant describing *“the mental side of it”* as *“the thing that sometimes makes it worse”* (P8-M). Vocal fatigue therefore appears not always as an isolated consequence of workload but is an experience embedded within wider financial and professional expectations for professional voice users.

Lifestyle and external factors that influence vocal fatigue

Lifestyle and environmental factors were also identified as potentially influencing experiences of vocal fatigue, with participants describing the tension between occupational vocal demands and participation in social and recreational activities. One musical theatre performer highlighted that *“a big part of our industry is loud environments after work”* (P9-MTP), demonstrating how occupational and social environments may extend beyond formal performance contexts, as socialising can involve further voice use, often in environments where individuals must increase their vocal effort to communicate. Participants also identified recreational behaviours including *“alcohol”* (P4-S/G), *“substance use”* (P48-MP), vaping and smoking, all of which have previously been documented to have negative effects on vocal health (Breitenfeld *et al.*, 2008; Byeon & Lee, 2013; Santos *et al.*, 2019; Mathmann *et al.*, 2024; Monteiro, Haddad & Azevedo, 2025). One participant questioned the extent to which performers should feel *“beheld to your job over your life”* (P41-MTP), suggesting that managing vocal fatigue involves negotiating and prioritising professional expectations with social activities. This is consistent with the concept of performers working as athletes, treating their voice the way an athlete would treat their body (LeBorgne & Rosenberg, 2024). However, participants’ accounts suggest that these behaviours should not be understood solely as individual choices. Occupational schedules, performance demands and social environments may shape opportunities for rest and constrain individual behaviour, demonstrating the interaction between lifestyle and occupational factors.

External performance conditions were also identified as contributors to vocal fatigue. Musicians and musical theatre performers discussed onstage monitoring, particularly in-ear devices; however, students did not mention this. Participants described how inadequate monitoring could increase vocal effort, with one performer sharing an experience where *“leads are feeding off of what the ensemble are doing, but we can't hear them so we're pushing, and they're pushing so we can hear them”* (P41-MTP), which relates to Solomon's (2008) suggestion that increased effort may contribute to vocal fatigue. This is especially relevant at present with the frequent increase of shows presented in the style of a rock concert (Taylor, 2025). However, participants, particularly musical directors, also identified insufficient education surrounding in-ear monitoring, suggesting that in-ears must be delivered with sufficient knowledge for performers to receive the benefit of the devices.

4.2 The Multifaceted Experience and Perception of Vocal Fatigue Among Professional Voice Users and Their Collaborators

Defining and understanding vocal fatigue and its aetiology

Figure 3 shows that all participants reported some level of familiarity with the term ‘vocal fatigue’.

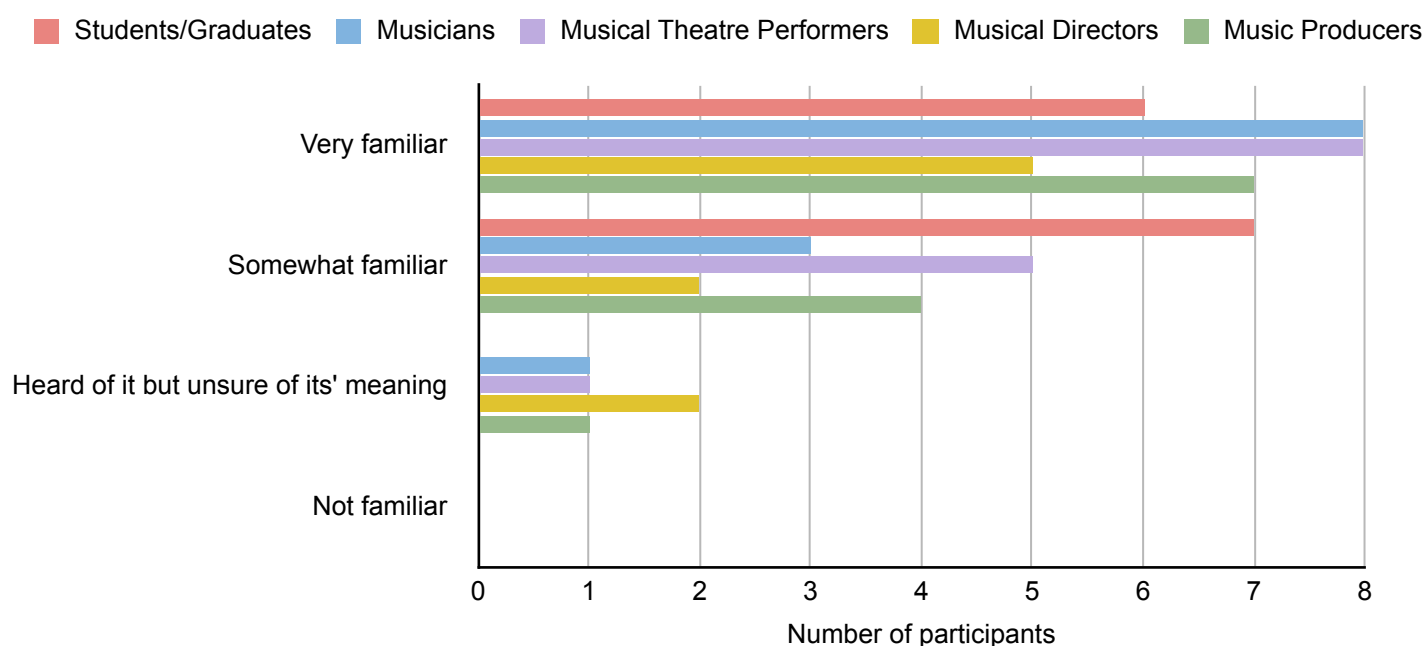


Figure 3 - Participants' familiarity with the concept of vocal fatigue.

Common descriptions included *“feeling vocally tired”* (P28-S/G) and using *“more effort to produce a sound”* (P9-MTP). Some participants conceptualised vocal fatigue as resulting from individual overuse, with one participant describing it as *“when the muscles that work together to produce voice have been overworked or abused”* (P52-MD). However, Calvache *et al.* (2024) identify multiple potential contributors to vocal fatigue, not always within the individual's control, as also

demonstrated in the previous theme. Therefore, vocal fatigue should not always be understood as the result of an individual overworking or abusing their voice, as this may overlook broader factors that contribute to the condition. Despite participants' familiarity as shown in Figure 3, qualitative accounts also indicated uncertainty around the definition of the condition. This apparent discrepancy suggests a disconnect between participants' perceived knowledge and demonstrated understanding of the condition, with one participant sharing, *"I think people call it vocal fatigue but don't actually know what it is"* (P31-S/G), while another stated, *"until you called it vocal fatigue, I don't think I'd really heard it called that before...so I think it's at least a positive step for me already, because I know what it's called"* (P58-MP). This suggests that familiarity with the terminology doesn't necessarily indicate a consistent understanding of the condition, supporting the need for greater clarity surrounding the definition as provided by Hunter *et al.* (2020).

Participants also identified a range of factors that they associate with the condition, including illness, seasonal issues such as hay fever, reflux, menstrual cycle, diet, hydration and vocal technique. Numerous participants mentioned illness and its connection with vocal fatigue, suggesting some uncertainty in distinguishing general illness from vocal fatigue. Sandage and Morton-Jones (2024) similarly highlight that illness does not necessarily equate to vocal fatigue, although working through an illness may potentially contribute to its onset. These findings further highlight the importance of understanding the multifaceted experience of vocal fatigue, rather than linking its occurrence to a single cause. Figure 4 below presents participants' confidence in recognising vocal fatigue.

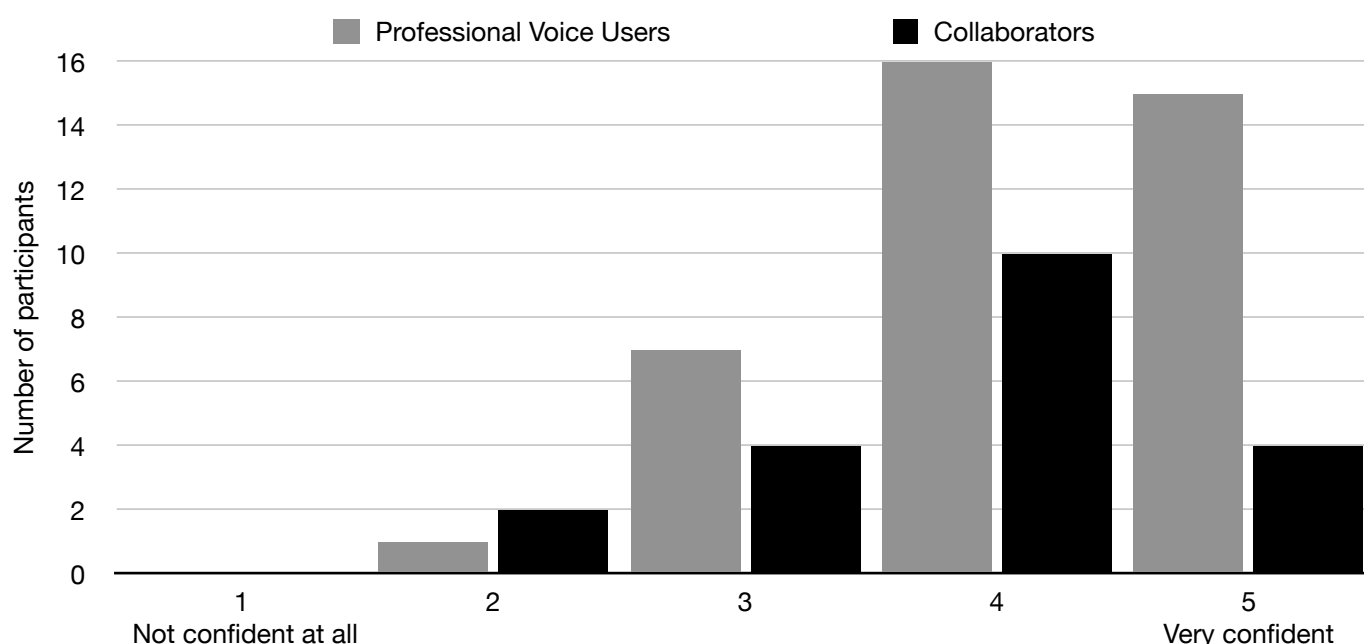


Figure 4 - Participants' confidence confidence in their ability to recognise vocal fatigue.

Although participants generally reported confidence in their ability to recognise the condition, qualitative accounts suggested that recognition relied on individual indicators and specific vocal tasks to identify fatigue, rather than a consistent understanding. An alternative perception was

identified among some musicians and music producers, who described vocal fatigue as potentially desirable for achieving particular vocal qualities. One producer explained, *“there are times when fatigue can be used as a tool...if I know there's quite an emotional track, but it doesn't need to be a particularly strong vocal...I may well put that at the end of a session... for the emotional aspect”* (P48-MP). This perception may reflect an attempt to produce vocal qualities associated with fatigue, which is particularly relevant when discussing vocal fry, a quality which some participants linked to vocal fatigue. Julea (2025) identifies vocal fry as a deliberate vocal technique used to produce emotional effects, while also noting that prolonged use of this quality can in fact contribute to vocal fatigue. This highlights a clear tension between the recommendations surrounding vocal fatigue, which emphasise prevention of the condition, and the potential culture within professional contexts in which some of the audible qualities associated with vocal fatigue may be aesthetically desirable. This disconnect raises considerations for both music producers and professional voice users, as encouraging or deliberately using vocal fatigue to produce vocal qualities may increase vocal-health risks. When professional voice users intentionally foster fatigue to create a specific sound, or producers encourage its use within a session, this creates additional ethical concerns regarding responsibility in a professional context around potential vocal injury. This emphasises the importance of both collaborators and professional voice users understanding the potential negative effects of embracing the qualities vocal fatigue may create and developing technically safe approaches to replicate these qualities without relying on vocal fatigue.

Recognition and interpretation of symptoms

Figure 5 shows that symptom patterns were broadly consistent across participant groups, with increased vocal effort, reduced vocal power, and reduced flexibility most frequently reported, while temporary loss of voice was the least common.

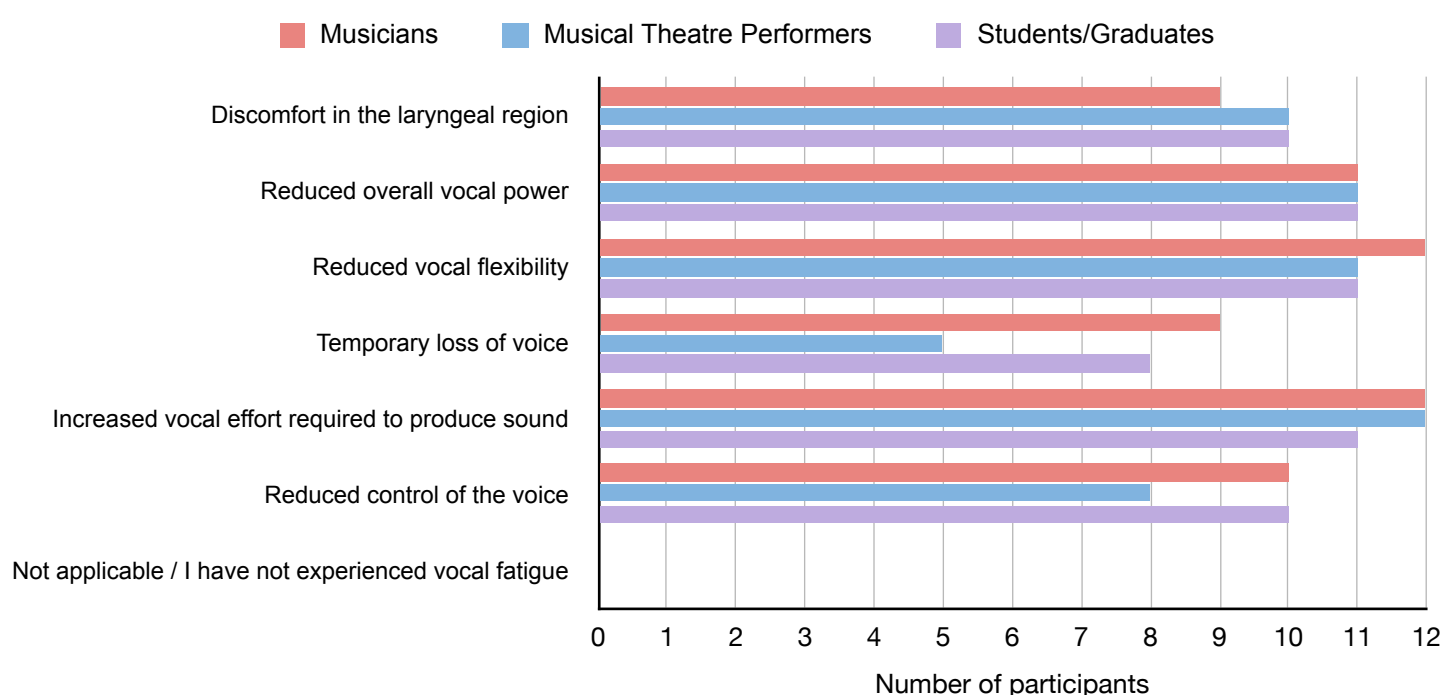


Figure 5 - Symptoms experienced by participants when feeling vocally fatigued.

Participants also differed in their perceptions of whether vocal fatigue was externally audible. Some described audible changes as an indicator of fatigue, while others suggested the condition isn't always audible to others. This distinction is particularly relevant for collaborators, who may not be able to identify fatigue solely from listening to a professional voice user.

Participants also showed some uncertainty surrounding how they interpreted these symptoms and whether they represented vocal fatigue or a vocal injury. One participant described how their vocal folds can “*feel a bit swollen*” (P9-MTP), while also acknowledging, “*obviously I can't feel my vocal folds*” (P9-MTP). This demonstrates how participants may interpret perceived sensations, while recognising that this may not accurately represent the condition. This uncertainty was also evident in a musical director's account of working with professional voice users, stating how they can quickly jump to assuming a significant injury, such as “*that means I have nodules and I can't sing for the next six months. And it's like, one, two, skip a few*” (P36-MD). This highlights the potential difficulty professional voice users may encounter in differentiating between vocal fatigue and a vocal injury, reinforcing the importance of greater education about vocal fatigue as a condition.

Emotional and physical impact and experiences of vocal fatigue

A common concern for participants was the difficulty “*not to have a negative connotation linked with vocal fatigue*” (P8-M), while also describing the shame and stigma associated with the condition, with one musical director noting that, “*there's still such a warped view on vocal health*” (P36-MD). Participants also described internal emotional responses interlinked with their experience of the condition, with one participant stating, “*I feel embarrassed, as if everyone knows that my voice is not strong and isn't being looked after correctly, even when I'm trying to*” (P31-S/G). In the questionnaire, participants selected the emotional responses they experienced when vocally fatigued, while collaborators identified emotions they observed when working with professional voice users experiencing the condition (figure 6).

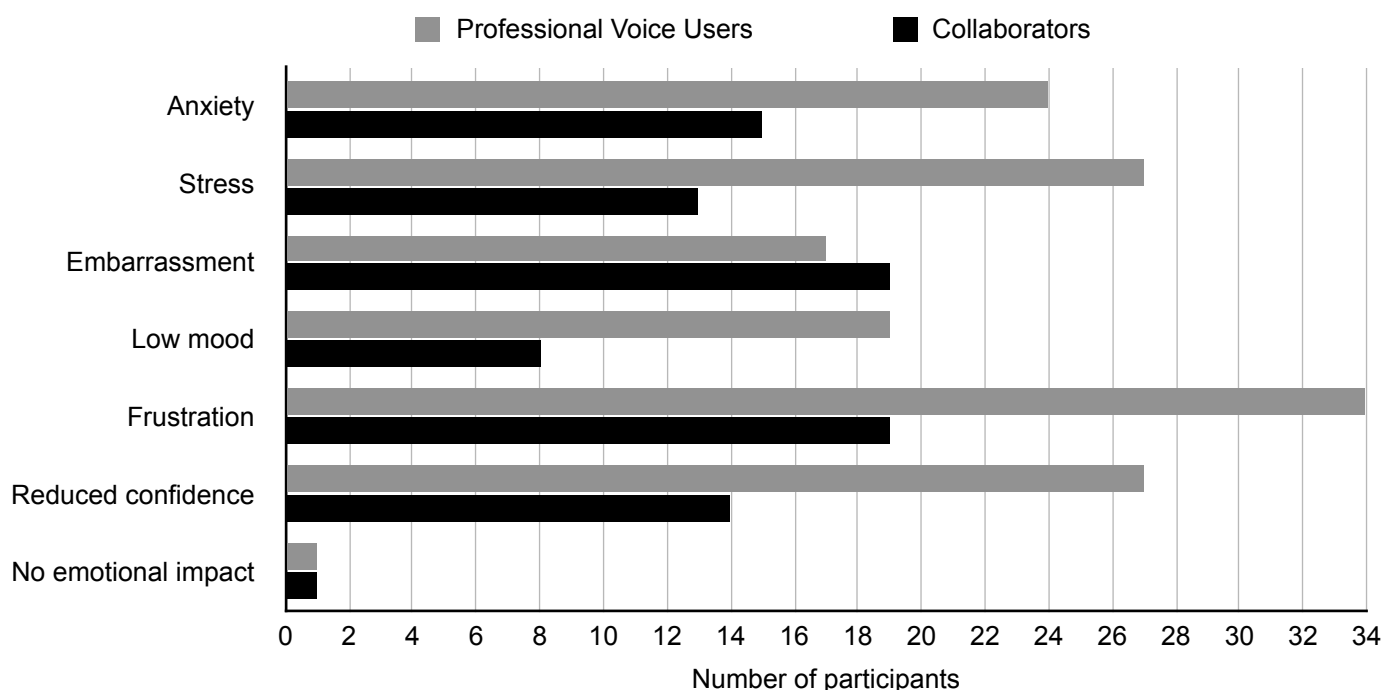


Figure 6 - Emotional responses participants associated with the experience of vocal fatigue.

One participant added an additional emotion, 'worthlessness', and only one professional voice user and one collaborator selected 'no emotional impact'. These findings are consistent with Bingaman, Mauger & Cantor-Cutiva (2026), who identified a reciprocal relationship between vocal and mental health among occupational voice users.

Another common theme was the perceived disconnect between vocal and physical health, with participants describing physical injuries as more widely recognised and accepted. Participants in the musical theatre industry, in particular, identified the additional demands of dancing and singing simultaneously, highlighting the need to consider how physical exertion may affect the voice. Literature similarly identifies the potential effects of combining these demands, including increased laryngeal tension (Thomas & Alexander, 2025), the potential to reduce maximum phonation time (Sliiden, Beck & MacDonald, 2017) and relationships between vocal exertion, respiratory strategies and vocal fatigue (Fujiki *et al.*, 2022), suggesting that the increased respiratory demands associated with simultaneous singing and dancing may contribute to vocal fatigue. Participants also made a connection between general physical fatigue and its impact on vocal function, with one participant noting that although musical directors may turn actors' microphones off to support vocal fatigue, *"you're still doing the physical"* (P27-MTP). This reflects Hamdan, Sataloff and Hawkshaw's (2019) identification of the relationship between body fatigue and vocal fatigue, suggesting that managing vocal fatigue may sometimes require physical rest in addition to reducing vocal demands. However, although the literature makes these links, participants perceived there to be a difference in how physical and vocal injuries are managed and responded to within professional contexts, with one participant explaining that *"if I'd have rolled my ankle, or pulled a muscle in my back, or dislodged something, they would have given me those two weeks to recover"* (P41-MTP); however, participants suggested that this time would not always be granted for a vocal injury. This suggests that vocal fatigue is not afforded the same legitimacy as physical fatigue, as reflected in discussions surrounding vocal and physical injuries. This may reflect wider institutional and professional constructions around how different injuries are accepted and perceived. Participants suggested that physical injuries are often more readily recognised as reasons for absence from training or the workplace, while vocal fatigue is not given the same consideration or acknowledgement.

4.3 The Role and Impact of Collaborators in Supporting Professional Voice Users Around Vocal Fatigue

What is a collaborator's role and responsibility to a professional voice user?

Collaborators play an integral role in the working lives of many professional voice users; however, this study identified uncertainty surrounding the responsibilities of musical directors and music producers in supporting vocal fatigue. Figure 7 shows that most collaborators had worked with a

professional voice user experiencing vocal fatigue, with only one collaborator selecting no, and one unsure, both of whom were music producers.

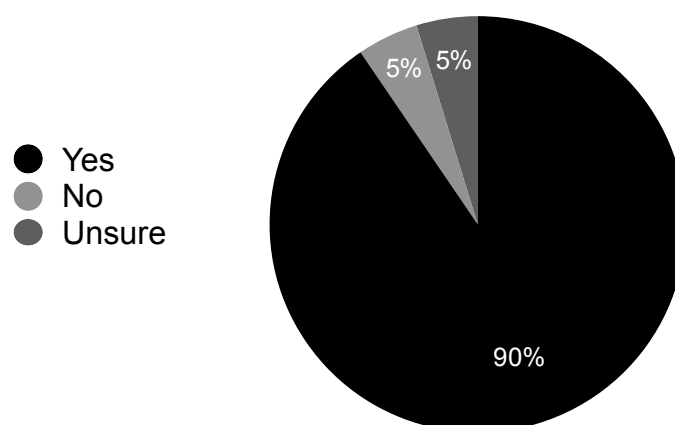


Figure 7 - Collaborators' experience of working with professional voice users experiencing vocal fatigue.

Analysis reflected conflicting views regarding the level of involvement collaborators should have in responding to vocal fatigue. One musical director described vocal fatigue as something that, although closely connected to their role, was not directly their responsibility, stating, *"although it's heavily linked to my job, it isn't my job"* (P44-MD). While a music producer similarly explained, *"I don't really feel like I've got that level of responsibility for them..."* (P58-MP), however, upon reflection, the same participant acknowledged, *"maybe that's where I'm going wrong, maybe there is a slight sense of challenge in terms of the relationship that we have with our freelancers...we probably should be a little bit more on the lookout for just how they're doing"* (P58-MP). In contrast, another musical director recognised a role in discussing vocal fatigue whilst still maintaining professional boundaries, stating, *"I'm comfortable discussing it but I wouldn't go so far as to advise anything beyond rest, I would always direct them to a technical specialist"* (P21-MD). This variation in perception demonstrates a lack of clarity regarding the level of responsibility collaborators believe they have toward professional voice users. The findings suggest that collaborators recognise that vocal fatigue intersects with their professional role, yet question the extent to which they should assume responsibility for guidance and management. However, responsibility may encompass several elements of dealing with vocal fatigue for collaborators, including identifying the condition, support within the workplace, guidance to prevent and mitigate the condition and ongoing management. This creates an unclear boundary between the collaborator's role in recognising, discussing and supporting vocal fatigue, and the point at which specialist guidance should be sought. This indicates a need for collaborators to have a clearer understanding of where their responsibilities lie and the type of guidance they may offer professional voice users.

Communication was also identified as an important consideration when approaching vocal fatigue. One producer questioned, *"How do we make you relaxed to allow you to perform efficiently and vocally deliver what you need to?"* (P48-MP), highlighting the need to balance supporting vocal management with fostering a supportive performance environment. Collaborators described difficulty in identifying or discussing vocal fatigue without causing offence, suggesting that the

language used when addressing the voice requires crucial consideration. One musical director explained, “*you have to use an entire different language and an entire different set of vocabulary, because... if you start talking about their singing without realising that it's them and their identity, they get upset, and that's totally understandable*” (P36-MD). This also appeared to be influenced by collaborators’ own musical training, with participants describing how their experience was often rooted in instrumental training, prior to or instead of working with the voice. One musical director explained this, stating, “*I’m not my instrument. You can tell me that something didn’t sound well, and that’s fine, because I’m not that piano*” (P36-MD). This further highlights the sensitivity required when delivering feedback to professional voice users when discussing and offering support around vocal fatigue.

Collaborators also recognised limitations in their own knowledge and expressed a desire for further education, particularly “*more around the mechanics*” (P30-MP); “*what’s going on biologically*” (P21-MD); and “*how to support singers experiencing vocal fatigue in session*” (P1-MP). This identified educational needs among collaborators, which are considered in the development and potential application of the educational guide.

The impact of collaborators and professional contexts on vocal fatigue among professional voice users

Figure 8 shows that collaborators appeared more comfortable discussing vocal fatigue with professional voice users than professional voice users were with collaborators.

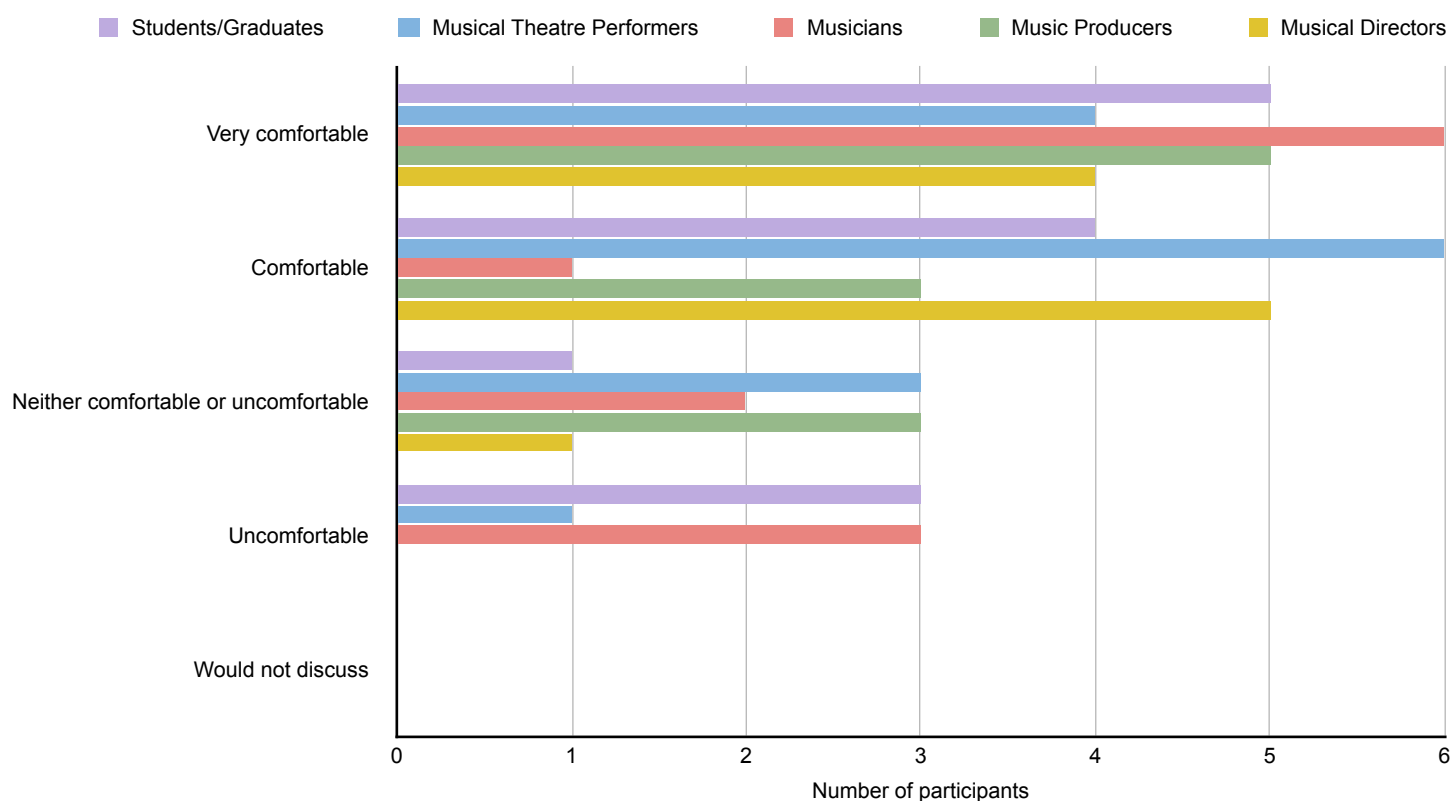


Figure 8 - Participants’ level of comfort discussing vocal fatigue with collaborators or professional voice users.

This may reflect the influence collaborators hold within professional environments and the potential consequences performers associate with disclosing vocal difficulties. Professional voice users frequently described a reluctance to let the company down, particularly when other company members were absent, creating additional pressure for remaining performers. One participant reflected on this experience, sharing *“if any other people are off, we will have to cancel the show. It's then, please push through where you can”* (P27-MTP). This was particularly evident in discussions surrounding the pressures of being a swing. Smith and Eyer (2015) identify the responsibility placed upon swings to ensure a show can continue. Numerous participants referenced the attitude of “the show must go on,” with one musical theatre performer sharing, *“my frustration comes with watching younger performers who fear getting ridiculed, or older performers who have the mentality the show must go on”* (P41-MTP). These accounts suggest that professional expectations and responsibilities may discourage performers from prioritising their vocal health.

Generation differences were also referenced, with both professional voice users and collaborators acknowledging the impact of age and experience on communication. One musical theatre performer shared, *“I have no problem telling a musical director that I am feeling tired or overworked. I say that now with 8 years of working experience but I wouldn't have had that confidence when I left drama school”* (P17-MTP), while a musical director similarly noted *“as a young person or as a fresh grad, you don't know what those boundaries are”* (P36-MD). However, in contrast, one musical theatre performer stated, *“I do feel like the younger generation coming through are a little bit more inclined to say I can't do the show”* (P27-MTP). These contrasting perspectives suggest that confidence in communication may be influenced by experience and changes in industry attitude, rather than age alone. Consequently, although performers may recognise vocal fatigue, professional expectations and environments can influence whether they feel comfortable acting upon it. Participants described concerns surrounding being perceived as *“unreliable”* (P19-M) or a *“diva”* (P33-M). This was also particularly evident where performers' own assessment of their vocal capability was challenged, with one performer recalling *“I was trying to say that I can't go on, and they were like you have to... it seems like you are well enough... And, I did, and then I had to go off mid-show”* (P9-MTP). This emphasises the importance of collaborators understanding professional voice users' needs and taking their assessment of their own vocal functionality seriously.

Participants also identified wider pressures within professional environments, such as expectations to perform “full out”, demands for high volume, and requests for particular vocal qualities, combined with the pressures of limited rehearsal time, which contribute to the way an individual manages balancing resilience with vocal health. One participant described how support was difficult to access during a rehearsal room because *“it's got to be quick. You've got to get through all the material. So it could be that you're doing it really unsafely”* (P27-MTP). This suggests that vocal fatigue management may be influenced not only by the individual but by the professional environment and expectations established by the collaborators. This was reflected by one

participant who described having to *“fight for what I want or need and sometimes being put in a position of having to work through, even when I know I shouldn’t, to not damage my voice further”* (P9-MTP). Overall, these findings suggest that the management of vocal fatigue is strongly influenced by the wider professional context, with the environment fostered within these settings playing a significant role in whether professional voice users feel comfortable to acknowledge and respond to vocal fatigue.

The role of training, education and alternative sources of information surrounding vocal fatigue

The role of training in how professional voice users identify, manage and respond to vocal fatigue was a prevalent theme in this study. Many participants expressed a desire for greater education surrounding the topic within training environments. Participants described training as insufficiently individualised, meaning that recommended guidance may not be equally effective for all professional voice users. Participants also described the repetition of general vocal health advice, with one student stating, *“we had one vocal health class.. a 1 hour 15 minute class over 3 years”* (P49-S/G). This suggests that greater consistency and integration of vocal health education throughout training may be beneficial. Participants also suggested that the vocal fatigue educational guide in development would be a welcome tool to provide accessible information to support the management and prevention of vocal fatigue throughout training.

Multiple participants also discussed a culture of disguising illness within training, with one participant sharing that they were encouraged *“don’t tell anyone, if you’re unwell or anything”* (P31-S/G). This mirrors Moore’s (2024) description of professional voice users feeling publicly marked by vocal injury. This was further reflected in discussions surrounding ‘voice rest badges’ offered to students within training. Although intended positively, participants described wearing these badges as *“a sign saying that I’m not okay...look, I’ve got something wrong with me”* (P31-S/G). Others noted that some students use the signs as an excuse to avoid singing, meaning those who would benefit from them may be reluctant to use them, due to concerns about being labelled as lazy. This highlights the importance of considering not only the practical provision of vocal fatigue support, but also the culture in which the support is implemented.

There was also discussion surrounding the credibility of advice provided to students, with one participant stating, *“they try and implement guidance but when the teachers are also outside smoking, it contradicts itself, to be honest. You can’t give advice to young people if you’re not taking the advice yourself”* (P49-S/G). Participants therefore discussed independently sourcing information surrounding vocal health, particularly through social media and seeking advice from credible musicians and performers. However, they also recognised the potential for misinformation, with one participant noting *“famous performers say things they don’t really understand, on social media, which can lead to misconceptions for younger people”* (P49-S/G). This is further supported

by Alter *et al.* (2026), whose study exploring the vocal health related content on TikTok found that the majority of content was unreliable and only moderately accurate.

Collectively, these findings indicate the range of contextual factors that contribute to how successfully guidance and advice are implemented by students and professional voice users. Education on vocal health must consider multiple factors, including the frequency of the information provided, the credibility of the guidance, the modelling and implementation of recommended behaviours by those delivering it, and the provision of individualised guidance. When these factors are considered, education may be more likely to be well received and implemented effectively within an educational environment. The vocal fatigue guide in this study offers a potential approach to improving access to consistent, research-informed information for professional voice users, enabling them to make more informed decisions about the information they encounter.

4.4 Moving from Reactive Management to Prevention of Vocal Fatigue

The dominance of reactive management over prevention

A clear majority of participants leaned towards reactive management over prevention when addressing vocal fatigue, with collaborators echoing this observation. This was also evident when participants were asked to identify separate strategies for management and prevention, with most strategies being identical and multiple participants listing no prevention strategies. This suggests a lack of distinction between the two approaches and a prioritisation of reactive management. This links to the previously discussed ‘Voice Eruption Volcano Model’ developed by Murali and Boominathan (2026), whose internal layers represent factors contributing to an eruption and could reflect the experience of vocal fatigue. Participants identified areas where they wanted to increase their knowledge, with prevention being the most common response; one participant asked, *“how to manage it in an industry setting that is healthy but doesn’t compromise your reputation in the industry”* (P35-S/G). This reinforces the need to distinguish preventative strategies from reactive management, as reflected in the educational guide.

One participant also described a wider tendency toward reactive responses in society, stating, *“I think human mentality in a lot of areas of life is more consequential than it is preventative... and I think that obviously translates into music, singing and voice work”* (P8-M). Similarly, a musical director reported only seeing professional voice users prioritise prevention when *“something has happened to them”* (P36-MD). A music producer echoed this, observing that those with previous experience of vocal difficulties will *“prepare a lot better, and they will keep their voice fit, and trained, and healthy”* (P48-MP), yet stated that the majority don’t do this until they are *“at the point where they need to do something about it”* (P48-MP). Dye (2021) discusses how the perceived immediacy of a health threat can influence the prioritisation of prevention. This idea is further developed by Dye (2024) through a concept called the 3Ss, describing how **soon**, how **certain**,

and how **shocking** the threat is perceived to be. Prevention is undertaken to reduce the threat, and the severity of the 3Ss may influence how individuals prioritise preventative behaviours. As Zhou *et al.* (2025) noted earlier, knowledge does not always translate into preventative behaviour. However, the tendency to favour reactive management may depend on multiple factors. A knowledge deficit surrounding management and prevention could be one factor, while contextual barriers, including financial constraints, professional workload or workplace culture, may also influence whether preventive strategies are successfully implemented. Nevertheless, the minority of participants who prioritised prevention demonstrate that this relationship is not straightforward. One participant stated, *“I don't really have the time to be like, okay, I've lost my voice, what am I going to do now?”* (P8-M), suggesting that prevention may also be valued as a means of avoiding the professional consequences of reactive management. This contrasts with the predominantly reactive approach, suggesting that prioritising prevention may also depend on the additional cost of reactive management.

The complexities, myths and misconceptions surrounding vocal fatigue management strategies

Although participants demonstrated greater clarity surrounding vocal fatigue management strategies, multiple approaches appeared to be conducted without consideration of individual needs. Steaming, nebulising and vocal rest were unanimously identified across professional voice users and collaborators as the most commonly used and recommended strategies, suggesting that these practices have become normalised within professional voice settings. These strategies appeared to be common recommendations, with one participant recalling collaborators asking, *“Have you steamed? Have you got your nebuliser?”* (P41-MTP), whenever vocal fatigue was discussed. However, some participants questioned their individual benefit, stating, *“I'm doing it because I think I should”* (P27-MTP), while another reflected, *“I just get screamed at to steam all the time...but I think overall hydration helps me a lot more”* (P46-M). Conversely, multiple participants perceived nebulising as beneficial, describing how it increases moisture, *“loosens the secretions”* (P20-M) and provides rehydration, acting as a *“quick fix”* (P9-M). Participants differed in whether they perceived greater benefit from steaming or nebulising, highlighting the importance of individualising vocal management strategies. Professional voice users should also recognise that superficial hydration cannot replace systemic hydration, as previously discussed in the literature (Alves *et al.*, 2019).

Participants also described misconceptions and uncertainty surrounding commercial remedies. Vocalzones were discussed as a popular remedy within professional environments, with one music producer noting that a client *“always brings Vocalzones in”*, and that *“I keep some in now too”* (P30-MP), while another reported, *“I have Vocalzones on pre-order on Amazon”* (P20-M). However, reliance was not universally viewed as effective, with one music producer questioning whether Vocalzones make a *“huge difference”* (P48-MP). Commercial promotion by celebrities such as Michael Ball and Dionne Warwick (Vocalzone, n.d.), alongside the gifting of Vocalzones to

West End productions such as *Hercules* (VocalzoneHQ, 2025), may continue to contribute to their perceived credibility. Meenan *et al.* (2016) suggest that Vocalzones should be used with caution, as they may mask the physiological response to pain, enabling continued voice use without addressing fatigue and reinforcing reactive rather than preventative management.

Understanding and responding to the individual experiences of vocal fatigue

Following the previous sub-theme, participants emphasised the importance of understanding their own voice and managing their own individual experience of vocal fatigue. Warm-up and cool-down practices were frequently discussed, with one participant challenging the expectation that professional voice users must partake in a standardised company warm-up, stating, *“to me, it’s much more professional to take myself off and do the vocal warm-up that I need to do for what my voice is doing in that show”* (P41-MTP). This account suggests that the perceived effectiveness of a warm-up is dependent on the individual’s requirements, highlighting the importance of individualised strategies. In contrast, one musical director viewed the company warm-up as *“a really good indicator of who’s feeling what”* (P36-MD), using it to observe how company members are feeling, vocally. While a collective warm-up may therefore provide an opportunity for a musical director to identify any vocal concerns, it may not necessarily accommodate each individual’s needs. Hoch and Sandage (2018) similarly identify the need for greater knowledge surrounding warm-up practices for managing vocal fatigue, highlighting the importance of adapting these to the individual voice user and their demands, as if not conducted correctly, there is the potential to increase vocal demand, which in turn may contribute to vocal fatigue (Hoch & Sandage, 2018).

The findings also highlighted the importance of understanding and developing consistent vocal technique. Participants identified incorrect technique as a potential cause of vocal fatigue, discussing how efficient vocal technique can reduce vocal effort (Davids & LaTour, 2020). Some participants also reported semi-occluded vocal tract (SOVT) exercises as positive management tools, while others expressed a desire to further develop their knowledge in this area. This demonstrates that knowledge of a strategy does not always equate to understanding the correct implementation, and SOVT exercises should also be designed to support the individual (Ragan, 2020). Vocal rest was another frequently recommended strategy, although participants suggested it was often offered as a general recommendation, rather than in response to an individual experience of vocal fatigue. Sataloff *et al.* (2019) distinguish between absolute and relative voice rest; however, participants did not appear to recognise this distinction. Instead, participants stated that vocal rest was often described as an unspecific blanket strategy, rather than considering specific approaches to managing their individual symptoms. Participants also described the process of conducting successful voice rest as *“difficult”* (P20-M), further emphasising the need for clarity in conducting vocal rest alongside the demanding lifestyle of a professional voice user. Hydration, sleep and vocal massage were also identified as other key strategies to aid vocal maintenance. However, participants’ trial-and-error approaches and uncertainty surrounding strategies highlight the importance of understanding the individual experience of vocal fatigue

before determining appropriate management. One participant captured this by asking, *“Do you think you could ever pinpoint as to when or where you're feeling it?”* (P4-S/G). This raises an important consideration: without being able to identify the nature and potential cause of their fatigue, professional voice users may struggle to select strategies that directly target the underlying mechanisms contributing to their individual experience (Shembel & Nanjundeswaran, 2025). Developing greater awareness of these factors may therefore enable professional voice users to make more informed decisions about the most appropriate management for their individual experience.

4.5 Participant Perspectives on the Educational Guide: Feedback, Learning and Relevance

Feedback on the structure, format and accessibility of the educational guide

Initial feedback focused on the structure, format and accessibility of the guide. Participants consistently described the resource as clear, accessible and logically structured, with one participant describing it as *“super easy to understand, really clear and tons of information. But, in a good way, it's not overwhelming”* (P2-MP). This suggests the guide communicated the condition's complexities without participants perceiving the volume or level of information as overwhelming, supporting the guide's original aim to reduce cognitive overload through its design. Participants particularly valued the accessibility of the scientific content, which was important feedback given the condition's complexity and ongoing development, particularly around the biophysiological mechanisms. Rather than removing scientific terminology, the guide attempted to make this information more accessible to a less specialised audience. However, it is important to consider this feedback alongside my positionality in creating the guide. Having already acknowledged my position as an insider researcher and having developed a rapport with each participant through the interview and focus groups prior to discussing the guide, there is potential for researcher-participant dynamics to have influenced the feedback. This may have encouraged participants to provide more favourable responses, particularly when evaluating a resource developed by the researcher.

Participant learning, key areas of engagement and suggested additions

Participants reported learning something new from the guide, with discussion focusing particularly on the explanations of potential causes and mechanisms underpinning the condition. As learning was not objectively assessed, the findings reflect participants' perceived learning rather than demonstrated changes in knowledge. Participants also responded positively to the logical progression of the guide, with one participant describing this structure as *“quite realistic, it's not just, your voice is tired, cancel all your gigs ever, it's, evaluate the impact of it, consider potential causes, targeted strategies”* (P12-M), highlighting the value of following a step-by-step process

when managing vocal fatigue. This aligns with the study's broader findings, where participants described jumping to conclusions before understanding their individual experience.

The scientific content generated the strongest engagement, with one participant stating, *“I love the whole scientific elements of the voice, and it would be nice if we got taught this”* (P49-S/G), while another responded, *“all of this biology, I had no idea!”* (P21-MD). Particularly significant was the observation that *“a lot of the time people just go... ‘oh my voice is so tired’ and that’s just as far as they register that their voice is tired”* (P42-MTP). This directly reflects the purpose of the guide: to move beyond the general acknowledgement of vocal fatigue and begin exploring individual experiences and responses. Engagement with this information may support more specific identification and management strategies.

One area of discussion, particularly among music producers, concerned the potential inclusion of information regarding the consequences of unmanaged vocal fatigue. One participant questioned, *“I did wonder if why should I care about this...needs to come first?”* (P48-MP) while another suggested, *“if I was to add another section, I would, maybe say what the dangers are, if you didn’t address it?”* (P2-M). This may reflect the importance of perceived threat in managing health conditions, as Dye (2021) suggests, understanding a condition's potential consequences may influence an individual's motivation and approach to response. However, this should be considered alongside participant feedback praising the guide's positivity, with one participant stating that the guide gets *“rid of the idea of the doom and gloom of fatigue”* (P42-MTP). These findings therefore highlight a potential tension for future development in communicating the significance of vocal fatigue and its potential consequences without creating unnecessary concern.

The potential application of the educational guide in professional practice

Participants identified a range of potential applications for the educational guide, including professional voice training within universities and colleges, individual singing lessons, healthcare settings, recording studios and professional company settings or organisations such as *“equity”* (P27-MTP). One participant stated that the guide would be beneficial for *“anybody that’s trying to make a career by using the voice”* (P30-MP), and another suggested it could help *“creatives to understand what it is that voice users are coming to them with”* (P41-MTP), with other participants suggesting that the guide be provided to non-singing band members too (P12-M), enabling those who work closely with professional voice users to develop an understanding of the condition.

4.6 Limitations

This study was not without limitations. Although 60 participants provided a substantial dataset for the scope and duration of the study, larger samples could provide greater representation across participant groups. The smaller subgroup sizes mean that differences between participant groups should be interpreted cautiously rather than taken as definitive comparisons. In addition, the

findings provide insight into the experiences of participants in this study but may not reflect the full range of experiences across the wider population of professional voice users. The reliance on self-reported experiences means responses may have been influenced by individual interpretation. Sampling bias must also be considered, as participants who volunteered for a study on vocal fatigue may have a pre-existing interest in the topic or greater awareness surrounding the condition, potentially influencing their ability to recognise or describe vocal fatigue. Including students and recent graduates alongside established professionals also means differences in professional experience should be considered when interpreting their experiences collectively. Furthermore, because the researcher developed the educational guide, reflexivity was particularly important throughout data collection, analysis, and interpretation to minimise researcher bias. The guide was evaluated through participants' perceptions of its accessibility, relevance and perceived learning, rather than through objective assessment of changes in knowledge or management of vocal fatigue.

5. Conclusion

This study explored how professional voice users and their collaborators perceive, identify and manage vocal fatigue, alongside exploring participants' responses to an educational guide. The findings show that vocal fatigue cannot be understood solely as a physiological response to vocal loading; it is shaped by individual experiences and wider professional contexts, including workplace culture, financial pressures, professional hierarchies, collaborator relationships, and professional expectations, all of which influence its identification, management, and potential prevention.

Collectively, the findings demonstrate that although most participants were generally familiar with the concept of vocal fatigue, there was less consistency in understanding its causes, underlying mechanisms and appropriate management. Vocal fatigue was experienced within complex professional and personal contexts, while management was predominantly reactive, with participants demonstrating greater awareness of strategies used once fatigue had occurred than of methods for prevention. However, participants also identified a need for greater knowledge surrounding both identification and prevention, suggesting that improved education may support a shift to preventative approaches, although knowledge alone may not overcome wider occupational and contextual barriers.

Although existing research has explored individual perceptions and experiences of vocal fatigue (Kitch & Oates, 1994; Phyland *et al.*, 2013; Joseph, Joseph & Jacob, 2020), this study contributes further understanding by examining not only participants' experiences of vocal fatigue, but also the knowledge gaps and areas of uncertainty they identified. Including both musical directors and music producers further extends consideration beyond the individual voice user, highlighting the

need for greater clarity around collaborators' responsibilities in recognising, supporting, and responding to vocal fatigue.

The educational guide provided an additional contribution to the study. While existing resources broadly address vocal health (Cazden, 2025) and vocal overloading (Burnay, 2026), comparatively less educational material focuses on developing an understanding of vocal fatigue as a whole, including its recognition, contributing factors, underlying mechanisms and individualised management. Participants responded positively to the guide, highlighting its potential application across training, professional and collaborative settings. Although it was not objectively evaluated for changes in knowledge or management behaviour, its perceived accessibility and relevance suggest that research-informed education may provide a useful approach to improving access to consistent information surrounding vocal fatigue.

Developing skills in qualitative data collection, coding and thematic analysis strengthened my confidence in research practice, while deeper engagement with both the literature and data further refined my understanding of vocal fatigue, its aetiology, mechanisms, symptoms and management. Translating research findings into practical guidance developed my ability to consider how research can be applied to support both professional voice users and their collaborators. Reflecting on my position as an insider researcher further enhanced my ability to recognise and critically examine how professional knowledge could influence interpretation, supporting a more reflective approach to analysis.

These findings should be considered alongside the previously discussed limitations. Further research could investigate whether increased knowledge translates into changes in preventative behaviour, professional practice, and whether this influences the frequency of vocal fatigue, including evaluation of the educational guide within such research. Investigating the knowledge of singing teachers and vocal coaches would also provide a further perspective. Exploring whether targeted, individualised strategies produce different outcomes across specific experiences of vocal fatigue may also support the development of more tailored management approaches.

Vocal fatigue is a multifaceted phenomenon (Welham & Maclagan, 2003), not only in its underlying mechanisms but also in the experiential variation of the condition. Developing accessible, research-informed resources may therefore enable voice users and their collaborators to further recognise and understand their individual experiences and responses, with the potential to influence targeted approaches towards prevention and management.

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Appendices

Appendix A - Ethics Form



PG2 / E1 FORM

APPLICATION FOR ETHICAL APPROVAL

RESEARCH STUDENTS

This form is to be completed by the student within **SIX** months for full-time students and **TWELVE** months for part time students, after the commencement of the research degree or following progression to Part Two of your course.

Once complete, submit this form via the **MyTSD Doctoral College Portal** at (<https://mytsd.uwtsd.ac.uk>).

This document is also available in Welsh.

RESEARCH STAFF ONLY

All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk, with the title 'Ethical Approval' followed by your name.

STUDENTS ON UNDERGRADUATE OR TAUGHT MASTERS PROGRAMMES should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.

In order for research to result in benefit and minimise risk of harm, it must be conducted ethically. A researcher may not be covered by the University's insurance if ethical approval has not been obtained prior to commencement.

The University follows the OECD Frascati manual definition of **research activity**: "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications". As such this covers activities undertaken by members of staff, postgraduate research students, and both taught postgraduate and undergraduate students working on dissertations/projects.

The individual undertaking the research activity is known as the "principal researcher".

Ethical approval is not required for routine audits, performance reviews, quality assurance studies, testing within normal educational requirements, and literary or artistic criticism.

Please read the notes for guidance before completing ALL sections of the form.

This form must be completed and approved prior to undertaking any research activity. Please see Checklist for details of process for different categories of application.

SECTION A: About You (Principal Researcher)

1	Full Name:	Kasia Howley			
2	Tick all boxes that apply:	Member of staff:	☐	Honorary research fellow:	☐
	Undergraduate Student	☐	Taught Postgraduate Student	☒	Postgraduate Research Student

3	Institute/Academic Discipline/ Centre:	WAPPAR
4	Campus:	Carmarthen
5	E-mail address:	kasiahowley@gmail.com

6	Contact Telephone Number:	07894945722
For students:		
7	Student Number:	2317730
8	Programme of Study:	MA Professional Practice (Voice Pedagogy)
9	Director of Studies/Supervisor:	Louise Emanuel/Julie Crossman/Debbie Winter/Joshua Lee-Cummins

SECTION B: Approval for Research Activity

1	Has the research activity received approval in principle? (please check the Guidance Notes as to the appropriate approval process for different levels of research by different categories of individual)	YES	☒	NO	☐
					Date
2	If Yes, please indicate source of approval (and date where known): Approval in principle must be obtained from the relevant source prior to seeking ethical approval	Research Degrees Committee	☐		
Institute Research Committee		☐			
Other (write in) WAPPAR Ethics Board Representative		☒			

SECTION C: Internal and External Ethical Guidance Materials

Please list the core ethical guidance documents that have been referred to during the completion of this form (including any discipline-specific codes of research ethics, location-specific codes of research ethics, and also any specific ethical guidance relating to the proposed methodology). Please tick to confirm that your research proposal adheres to these codes and guidelines. You may add rows to this table if needed.		
1	UWTSD Research Ethics & Integrity Code of Practice	☒
2	UWTSD Research Data Management Policy	☒
3	<i>[List any other relevant documents here]</i>	☐

SECTION D: External Collaborative Research Activity

If there are external collaborators then you should gain consent from the contact persons to share their personal data with the university. If there are no external collaborators then leave this section blank and continue to section E.

1	Institution	
2	Contact person name	

3	Contact person e-mail address					
4	Is your research externally funded?	YES	☐	NO	☐	
5	Are you in receipt of a KESS scholarship?	YES	☐	NO	☐	
6	Are you specifically employed to undertake this research in either a paid or voluntary capacity?	Voluntary	YES	☐	NO	☐
7		Employed	YES	☐	NO	☐
8	Is the research being undertaken within an existing UWTSD Athrofa Professional Learning Partnership (APLP)?	If YES then the permission question below does not need to be answered.	YES	☐	NO	☐
9	Has permission to undertake the research has been provided by the partner organisation?	(If YES attach copy) If NO the application cannot continue	YES	☐	NO	☐

Where research activity is carried out in collaboration with an external organisation

10	Does this organisation have its own ethics approval system?	YES	☐	NO	☐
If Yes, please attach a copy of any final approval (or interim approval) from the organisation (this may be a copy of an email if appropriate).					

SECTION E: Details of Research Activity

1	Indicative title:	Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators: An Exploratory Study Informed by an Educational Guide.			
2	Proposed start date:	10/02/26	Proposed end date:	1/10/26	
Introduction to the Research (maximum 300 words per section) Ensure that you write for a <u>Non-Specialist Audience</u> when outlining your response to the points below: <i>Purpose of Research Activity</i> <i>Proposed Research Question</i> <i>Aims of Research Activity</i> <i>Objectives of Research Activity</i> Demonstrate, briefly, how <u>Existing Research</u> has informed the proposed activity and explain <i>What the research activity will add to the body of knowledge</i> <i>How it addresses an area of importance.</i>					

3	Purpose of Research Activity The purpose of this research activity is to explore how professional voice users currently perceive, identify and manage experiences of vocal fatigue within their daily professional practice. The study will examine these processes in relation to self-reported recognition of vocal fatigue, strategies used to manage symptoms, and approaches to prevention. In addition, the study will also include individuals who work alongside professional voice users, such as vocal coaches, musical directors and music producers, in order to explore how vocal fatigue is identified and addressed within collaborative and professional working environments. While existing research has examined the prevalence of vocal fatigue within specific populations (Welham & MacLagan, 2004; Carroll <i>et al.</i>, 2006; Joseph, Joseph & Jacob, 2020), there is less focus on how professional voice users and their collaborators understand, interpret, and respond to vocal fatigue in practice. This study therefore aims to identify perceived gaps in knowledge, areas of uncertainty, and challenges in current approaches to vocal fatigue management. Following initial data collection, participants will be provided with a research-informed educational guide that addresses vocal fatigue, including commonly discussed subtypes, contributing factors, management strategies and preventative considerations. Participants will then be invited to reflect on whether this guide influences their understanding of vocal fatigue, offers new perspectives, or suggests potential changes to their professional practice. (this box should expand as you type)
4	Research Question How do professional voice users and those who work with them perceive, identify and manage vocal fatigue, and how might an educational guide influence and contribute to their understanding and professional practice? (this box should expand as you type)
5	Aims of Research Activity • To examine how professional voice users identify, manage and perceive vocal fatigue in their daily professional practice. • To investigate how individuals who work alongside professional voice users such as; vocal coaches, musical directors and music producers, identify, support and manage vocal fatigue within professional and working environments. • To examine participant's reflections on a research informed educational guide and its perceived influence on their understanding of vocal fatigue and management of the condition. (this box should expand as you type)

6	Objectives of Research Activity • To document and analyse professional voice users' and their collaborators' experiences of vocal fatigue within professional practice, including their understanding, management and prevention of the condition. • To identify perceived gaps in knowledge, areas of uncertainty and challenges within current approaches to vocal fatigue management. • To examine how a research informed educational guide may support professional reflection, knowledge development, and its perceived influence the professional practice of professional voice users and their collaborators. • To contribute insights that may inform the development of future training, guidance or the development of educational resources that support the management of vocal fatigue in the professional voice field. (this box should expand as you type)
	Proposed methods (maximum 600 words) Provide a brief summary of all the methods that may be used in the research activity, making it clear what specific techniques may be used. If methods other than those listed in this section are deemed appropriate later, additional ethical approval for those methods will be needed. You do not need to justify the methods here, but should instead describe how you intend to collect the data necessary for you to complete your project.
7	This study will adopt a mixed-methods approach, with an emphasis on qualitative data. This is appropriate given the study's focus on understanding participants' experiences, perceptions and reflections surrounding vocal fatigue. Quantitative data will also be collected to examine patterns and differences across demographics and participant groups, providing contextual support to the qualitative findings. 1. Literature Review (Qualitative) - A narrative literature review will be conducted to identify and analyse existing research surrounding vocal fatigue among professional voice users and their collaborators. 2. Questionnaire (Mixed Methods) - A questionnaire will be distributed to professional voice users and those who collaborate with them, using google forms. - The questionnaire will include both closed and open-ended questions. - Participants will be given the option to participate in a focus groups and/or individual interview. 3. Focus Group (Qualitative) - Multiple focus groups will be conducted via Zoom, with participants potentially grouped according to their roles where appropriate. - Groups will be audio/video recorded and then transcribed using the service provided by Zoom. 4. Individual Interviews (Qualitative) - Semi-structured interviews will be conducted via Zoom. - Interviews will be audio/video recorded and then transcribed using the service provided by Zoom. 5. Field Notes (Qualitative) - Field notes may be taken during focus groups and interviews to document observations relevant to participant interactions and physical responses. (this box should expand as you type)

	Location of research activity Identify all locations where research activity will take place.
8	Research activity will take place at my/the researcher's private studio at Tileyard North in Wakefield, at Emil Dale Academy, and virtually via Zoom and using Google Forms. <i>Focus groups and individual interviews may be conducted either virtually via Zoom or in-person at Tileyard North or Emil Dale Academy depending on preference and feasibility.</i> (this box should expand as you type)
	Research activity outside of the UK If research activity will take place overseas, you are responsible for ensuring that local ethical considerations are complied with and that the relevant permissions are sought. Specify any local guidelines (e.g. from local professional associations/learned societies/universities) that exist and whether these involve any ethical stipulations beyond those usual in the UK (provide details of any licenses or permissions required). Also specify whether there are any specific ethical issues raised by the local context in which the research activity is taking place, for example, particular cultural and/or legal sensitivities or vulnerabilities of participants. If you live in the country where you will do the research then please state this.
9	(this box should expand as you type)

10	Use of documentation not in the public domain: Are any documents <u>NOT</u> publicly available?	NO	☒
		YES	☐
11	If Yes, please provide details here of how you will gain access to specific documentation that is not in the public domain and that this is in accordance with the current data protection law of the country in question and that of England and Wales. (this box should expand as you type)		

	Does your research relate to one or more of the seven aims of the Well-being of Future Generations (Wales) Act 2015?	YES	NO
12	A prosperous Wales	☐	☒
13	A resilient Wales	☐	☒
14	A healthier Wales	☐	☒
15	A more equal Wales	☐	☒
16	A Wales of cohesive communities	☐	☒
17	A Wales of vibrant culture and thriving Welsh language	☐	☒
18	A globally responsible Wales	☐	☒
19	If YES to any of the above, please give details:		
	(this box should expand as you type)		

SECTION F: Scope of Research Activity

	Will the research activity include:	YES	NO
1	Use of a questionnaire or similar research instrument?	☒	☐
2	Use of interviews?	☒	☐
3	Use of focus groups?	☒	☐
4	Use of participant diaries?	☐	☒
5	Use of video or audio recording?	☒	☐
6	Use of computer-generated log files?	☒	☐
7	Participant observation with their knowledge?	☒	☐
8	Participant observation without their knowledge?	☐	☒
9	Access to personal or confidential information without the participants' specific consent?	☐	☒
10	Administration of any questions, test stimuli, presentation that may be experienced as physically, mentally or emotionally harmful / offensive?	☒	☐
11	Performance of any acts which may cause embarrassment or affect self-esteem?	☐	☒
12	Investigation of participants involved in illegal activities?	☐	☒
13	Use of procedures that involve deception?	☐	☒
14	Administration of any substance, agent or placebo?	☐	☒
15	Working with live vertebrate animals?	☐	☒
16	Procedures that may have a negative impact on the environment?	☐	☒
17	Other primary data collection methods. Please indicate the type of data collection method(s) below.		
	Details of any other primary data collection method: (this box should expand as you type)	☐	☒

If NO to every question, then the research activity is (ethically) low risk and **may** be exempt from **some** of the following sections (please refer to Guidance Notes).

If YES to any question, then no research activity should be undertaken until full ethical approval has been obtained.

SECTION G: Intended Participants

If there are no participants then do not complete this section, but go directly to section H.

	Who are the intended participants:	YES	NO
1	Students or staff at the University?	☐	☒
2	Adults (over the age of 18 and competent to give consent)?	☒	☐
3	Vulnerable adults?	☐	☒

4	Children and Young People under the age of 18? (Consent from Parent, Carer or Guardian will be required)	☐	☒
5	Prisoners?	☐	☒
6	Young offenders?	☐	☒
7	Those who could be considered to have a particularly dependent relationship with the investigator or a gatekeeper?	☐	☒
8	People engaged in illegal activities?	☐	☒
9	Others. Please indicate the participants below, and specifically any group who may be unable to give consent.	☐	☒
Details of any other participant groups: (this box should expand as you type)			

Participant numbers and source Provide an estimate of the expected number of participants. How will you identify participants and how will they be recruited?		
10	How many participants are expected?	Questionnaire - Approximately between 50 - 100 participants will be invited to complete the questionnaire. Focus Groups - Between 3 and 5 focus groups, with up to 8 participants per group. Individual Interviews - Approximately 10 to 15 participants will be chosen. (this box should expand as you type)
11	Who will the participants be?	Participants will be divided into two groups: Professional Voice Users - Professional musical theatre performers - Professional musicians and singers - Musical theatre students in their 2nd or 3rd year of professional training. Those Working with Professional Voice Users - Vocal Coaches - Musical Directors - Music Producers All participants will have recent or current experience performing professionally, be currently in their 2nd or 3rd year of professional training or currently work with professional voice users in a professional setting. (this box should expand as you type)

12	How will you identify the participants?	A purposive sampling method will be used to recruit participants. An email with a link to the google form questionnaire will be sent to all current students who fall within the following categories: • Students in their 2nd and 3rd years of professional training (from both my/the researcher's private studio and other workplace, Emil Dale Academy). • Individuals working as professional musicians. • Professional musical theatre performers currently engaged in a professional contract or who have completed one within the past year. Colleagues and acquaintances who are vocal coaches, musical directors and music producers will then also be invited to participate. Following this, a snowball sampling method will be used and participants who receive the questionnaire will be encouraged to share it with others who fit the eligibility criteria. Any individual who is currently experiencing a voice disorder, injury or are in the process of vocal rehabilitation will be excluded, due to the nature and purpose of the study. <i>(this box should expand as you type)</i>
----	---	---

Information for participants:		YES	NO	N/A
13	Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	☒	☐	☐
14	Will you tell participants that their participation is voluntary?	☒	☐	☐
15	Will you obtain written consent for participation?	☒	☐	☐
16	Will you explain to participants that refusal to participate in the research will not affect their treatment or education (if relevant)?	☒	☐	☐
17	If the research is observational, will you ask participants for their consent to being observed?	☒	☐	☐
18	Will you tell participants that they may withdraw from the research at any time and for any reason?	☒	☐	☐
19	With questionnaires, will you give participants the option of omitting questions they do not want to answer?	☒	☐	☐
20	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	☒	☐	☐
21	Will you debrief participants at the end of their participation, in a way appropriate to the type of research undertaken?	☒	☐	☐
22	If NO to any of above questions, please give an explanation			
<i>(this box should expand as you type)</i>				

Information for participants:		YES	NO	N/A
24	Will participants be paid?	☐	☒	☐

25	Is specialist electrical or other equipment to be used with participants?	☒	☐	☐
26	Are there any financial or other interests to the investigator or University arising from this study?	☐	☒	☐
27	Will the research activity involve deliberately misleading participants in any way, or the partial or full concealment of the specific study aims?	☐	☒	☐
28	If YES to any question, please provide full details			
I will be using the Zoom virtual platform to record both the individual interviews and focus groups. <i>(this box should expand as you type)</i>				

SECTION H: Anticipated Risks

Outline any anticipated risks that may adversely affect any of the participants, the researchers and/or the University, and the steps that will be taken to address them. If you have completed a full risk assessment (for example as required by a laboratory, or external research collaborator) you may append that to this form.						
1	Full risk assessment completed and appended?	<table border="1"> <tr> <td>Yes</td> <td>☐</td> </tr> <tr> <td>No</td> <td>☒</td> </tr> </table>	Yes	☐	No	☒
Yes	☐					
No	☒					
2	Risks to participants For example: sector-specific health & safety, emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information					
	Risk to participants: • Emotional or psychological distress - Some content discussing vocal fatigue may be emotionally or psychologically triggering for participants. - Participants who are experiencing a vocal injury or have not yet disclosed one may feel anxious or concerned when completing the questionnaire or participating in focus groups or interviews. • Pressure to participate - Participants who are precious students of mine/the researcher may feel pressured to participate in the study. • Confidentiality concern - Participants may feel uncomfortable providing personal details, especially if they perceive gaps in their knowledge. - Participants may disclose information about other professionals, colleagues or workplaces that they consider sensitive or personal and may worry about this being disclosed.	How you will mitigate the risk to participants: • Emotional or psychological distress - A disclaimer will included in the initial invitation emails, clearly stating the nature and content of the study, so participants are aware of what to expect and can choose not to participate. - If participants raise concerns or disclose vocal injuries, they will be directed to appropriate professional resources, such as BAPAM, TBVA, ENT specialists and voice rehabilitation practitioners. These resources will be available to all participants. • Pressure to participate - All participants will receive the exact same invitation email emphasising that participation is completely voluntary and that there is no pressure to take part in the study. • Confidentiality concern - Participants will be informed that all data will be treated confidentially and anonymised, with personal details only collected where necessary on the initial form. No identifiable information will be disclosed in the final report.				

	• Social discomfort - Participants may feel anxious about speaking in front of others, particularly in focus groups where they may know other participants, leading to potential social anxiety. • Practical concerns - Participants may be conscious of the time commitment required to complete these questionnaires, focus groups or interviews which could cause stress or inconvenience.	• Social discomfort - Participants will be provided with information about the focus group format, including the number and type of participants, before agreeing to take part. - They will have the option to opt out within the questionnaire stage. • Practical concerns - All focus groups and interviews will be scheduled at times that minimise disruption to participants' professional and personal commitments. - Flexibility will be offered to accommodate participants' schedules wherever possible.
3	If research activity may include sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity), give details of the procedures to deal with these issues, including any support/advice (e.g. helpline numbers) to be offered to participants. Note that where applicable, consent procedures should make it clear that if something potentially or actually illegal is discovered in the course of a project, it may need to be disclosed to the proper authorities	
	Participants may find the discussion of vocal fatigue upsetting or triggering. If any participants disclose they are experiencing severe vocal fatigue or any other vocal injury they will be directed to the appropriate resources such as BAPAM, TBVA, specialised ENT's and voice rehabilitation specialists. Also, if any of the questions evoke an emotional or psychological response, I will guide participants to specialised mental health support such as BAPAM, Music Minds Matter, Industry Minds and Help Musicians. <i>(this box should expand as you type)</i>	
4	Risks to the investigator For example: personal health & safety, physical harm, emotional distress, risk of accusation of harm/impropriety, conflict of interest	
	Risk to the investigator: • Loss of participants - Participants may drop out during the research process, which could impact the data collection and timeline. • Emotional strain - Hearing participants potentially disclose experiences of vocal strain, fatigue or other potentially triggering content could be emotionally taxing.	<i>How you will mitigate the risk to the investigator:</i> • Loss of participants - Recruit a slightly larger number than the minimum to account for potential dropouts. - Ensure participants are fully aware of the timeline and process of the study before committing. • Emotional strain - Taking regular breaks during data collection and creating time to reflect appropriately. - Seek supervision from my academic supervisor or student support officer if any emotionally challenging content arises.

	• Risk of bias - As a musician and vocal coach, my own personal training, experience and opinions may subconsciously influence data collection or interpretation. • Risk of impropriety - During individual interviews and discussions, there is always a small risk of alleged impropriety. • Time management - Managing the process and coordination of recruitment, resource development and data collection can be time consuming and challenging. • Technical difficulty and data management - When using digital platforms I may encounter technical issues such as failed recordings or loss of data. - Ensuring secure storage and confidentiality is a significant responsibility and may be a source of stress if not managed carefully.	• Risk of bias - Keep a reflective journal to document my thoughts and any potential biases throughout the process. - Ensure to remain objective throughout the study and separate my personal views from my analysis. - Use structure/semi structure to remain consistent throughout the process. • Risk of impropriety - A professional attitude will be maintained at all times. - All interviews and focus groups will be recorded to ensure transparency and to be used as evidence if ever required. • Time management - Develop a clear timeline and schedule for the process to maintain structure and organisation. - Include additional time to compensate for any potential unexpected delays or issues that may arise. • Technical difficulty and data management - Test all online platforms prior to each interview/focus group. - Record and back up data securely immediately after each stage. - Strict data protection protocols will be followed, including encryption and two factor authentication.
5	University/institutional risks For example: adverse publicity, financial loss, data protection	
	Risk to the University: • Risk of reputation - If any data is mishandled or there is a breach of confidentiality, this could affect the reputation of the university. • Legal risk - Mismanagement of any sensitive information could cause participant complaints to the university or potential investigation. • Data dispute - If data is not stored securely then there may be disputes over usage rights.	How you will mitigate the risk to the University: • Risk of reputation - All data will be securely stored and managed in line with the university data protection policy. • Legal risk - Procedures will strictly follow ethical requirements and records of all data collection will be maintained to ensure compliance. • Data dispute - All research data will be securely backed up and encrypted with access restricted to authorised personnel.

6	Environmental risks For example: accidental spillage of pollutants, damage to local ecosystems	
	Risk to the environment: N/A <i>(this box should expand as you type)</i>	How you will mitigate the risk to environment: <i>(this box should expand as you type)</i>

Disclosure and Barring Service				
	If the research activity involves children or vulnerable adults, a Disclosure and Barring Service (DBS) certificate must be obtained before any contact with such participants.	YES	NO	N/A
7	Does your research require you to hold a current DBS Certificate?	☐	☒	☐
8	If YES, please give the certificate number. If the certificate number is not available please write "Pending"; in this case any ethical approval will be subject to providing the appropriate certificate number.			

SECTION I: Feedback, Consent and Confidentiality

1	Feedback What de-briefing and feedback will be provided to participants, how will this be done and when?
	Participants will be provided with my email address and offered the opportunity to ask questions regarding the final report and receive a general overview of the findings.
2	Informed consent Describe the arrangements to inform potential participants, before providing consent, of what is involved in participating. Describe the arrangements for participants to provide full consent before data collection begins. If gaining consent in this way is inappropriate, explain how consent will be obtained and recorded in accordance with prevailing data protection legislation.
	The google form will begin within an information section outlining the purpose, nature, and objectives of the study. Participants will be informed of the themes and subjects that will be covered, which may touch on potentially sensitive experiences. Participants will be informed of the approximate time commitment required and the voluntary nature of participation. They will also be informed of their right to withdraw from the study at any point, including after submission of the questionnaire. Information will be provided regarding how data will be collected and stored depending on participants' responses, and participants will be reassured that any identifiable information will not be disclosed. Participants will be required to actively select whether they give informed consent before being able to proceed with the questionnaire. No data will be collected unless consent is provided. At the end of the questionnaire, participants will be offered the option to opt in or out of the next stages of the study, the interviews and focus groups, without this being a requirement for completing the questionnaire. The nature, content and expected time commitments of these stages will be clearly explained to allow participants to make a fully informed decision.

3	Confidentiality / Anonymity Set out how anonymity of participants and confidentiality will be ensured in any outputs. If anonymity is not being offered, explain why this is the case.
	Participants' names and email addresses will only be collected for the purpose of selecting participants for the next stages of the study (focus groups and interviews), using a randomiser. These personal details will not be shared in any publication or report, and participants will remain completely anonymous within the study. During focus groups and interviews, cameras will be used, so participants may be identifiable to each other during the session. However, no recordings, images or identifiable information will be shared or publishes, only the content of the discussions will be used for analysis. All data will be securely stored, encrypted and anonymised where appropriate to ensure confidentiality. <i>(this box should expand as you type)</i>

SECTION J: Data Protection and Storage

	Does the research activity involve personal data (as defined by the General Data Protection Regulation 2016 "GDPR" and the Data Protection Act 2018 "DPA")?	YES	NO
1	<i>"Personal data" means any information relating to an identified or identifiable natural person ('data subject'). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. Any video or audio recordings of participants is considered to be personal data.</i>	☒	☐
	If YES, provide a description of the data and explain why this data needs to be collected:		
2	Participants' names and email addresses will only be collected for the purpose of selecting participants for the next stages of the study (focus groups and interviews), using a randomiser. These personal details will not be shared in any publication or report, and participants will remain completely anonymous within the study. During focus groups and interviews, cameras will be used, so participants may be identifiable to each other during the session. However, no recordings, images or identifiable information will be shared or publishes, only the content of the discussions will be used for analysis.		
	Does it involve special category data (as defined by the GDPR)?	YES	NO
3	<i>"Special category data" means sensitive personal data consisting of information as to the data subjects' – (a) racial or ethnic origin, (b) political opinions, (c) religious beliefs or other beliefs of a similar nature, (d) membership of a trade union (within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992), (e) physical or mental health or condition, (f) sexual life, (g) genetics, (h) biometric data (as used for ID purposes),</i>	☒	☐
	If YES, provide a description of the special category data and explain why this data needs to be collected:		

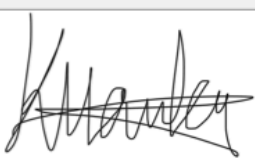
4	(e) - Participants must disclose any current vocal health conditions or disorders as this may affect eligibility to partake in the study. <i>(this box should expand as you type)</i>
---	---

	Will data from the research activity (collected data, drafts of the thesis, or materials for publication) be stored in any of the following ways?	YES	NO
5	Manual files (i.e. in paper form)?	☐	☒
6	University computers?	☐	☒
7	Private company computers?	☐	☒
8	Home or other personal computers?	☐	☒
9	Laptop computers/ CDs/ Portable disk-drives/ memory sticks?	☒	☐
10	"Cloud" storage or websites?	☒	☐
11	Other – specify:	☐	☒
12	For all stored data, explain the measures in place to ensure the security of the data collected, data confidentiality, including details of backup procedures, password protection, encryption, anonymisation and pseudonymisation: All data will be kept in password protected cloud storage on the company's Office 365 system which will not be shared. Audio/visual data will be transcribed and would be shown to participants to check accuracy of reporting. Any USB sticks used to store or transfer data will be password protected. All participants will be given a unique identifier to ensure confidentiality and this list will be kept securely in the password protected folder. <i>(this box should expand as you type)</i>		

Data Protection			
	Will the research activity involve any of the following activities:	YES	NO
13	Electronic transfer of data in any form?	☒	☐
14	Sharing of data with others at the University outside of the immediate research team?	☐	☒
15	Sharing of data with other organisations?	☐	☒
16	Export of data outside the UK or importing of data from outside the UK?	☐	☒
17	Use of personal addresses, postcodes, faxes, emails or telephone numbers?	☒	☐
18	Publication of data that might allow identification of individuals?	☐	☒
19	Use of data management system?	☒	☐
20	Data archiving?	☐	☒
21	If YES to any question, please provide full details, explaining how this will be conducted in accordance with the GDPR and Data Protection Act (2018) (and any international equivalents, where appropriate):		

	All data will be encrypted and kept in password protected cloud storage on the Company's Office 365 system which will not be shared. Any USB sticks used to store or transfer data will be password protected. All data transfers will be encrypted, and password protected. All participants will be given a unique identifier to ensure confidentiality and this list will be kept securely in the password protected folder. Raw data, including questionnaires, interview and focus group recordings will be securely stored until the moderation process for the module is completed and then deleted. Analysed findings and the final study will be retained indefinitely for academic purposes. In accordance with the DPA2018, participants will have the right to ask to see what data is held relating to them, and this data will be deleted immediately if the participant requests this, in which case the data will not be used in the project. <i>(this box should expand as you type)</i>		
22	List all who will have access to the data generated by the research activity:		
	The principal researcher / Kasia Howley Module Supervisor / Joshua Lee-Cummins Moderators <i>(this box should expand as you type)</i>		
23	List who will have control of, and act as custodian(s) for, data generated by the research activity:		
	The principal researcher/ Kasia Howley <i>(this box should expand as you type)</i>		
24	Give details of data storage arrangements, including security measures in place to protect the data, where data will be stored, how long for, and in what form. Will data be archived – if so how and if not why not.		
	All data will be encrypted and kept in password protected cloud storage on the Company's Office 365 system which will not be shared. Any USB sticks used to store or transfer data will be password protected and will be reformatted at the end of the project in order to destroy the data. The data will be stored until the completion of the project and then deleted. <i>(this box should expand as you type)</i>		
25	Please indicate if your data will be stored in the UWTSD Research Data Repository (see https://researchdata.uwt.ac.uk/). If so please explain. <i>(Most relevant to academic staff)</i>		
	<i>(this box should expand as you type)</i>		
26	Confirm that you have read the UWTSD guidance on data management (see https://www.uwt.ac.uk/library/research-data-management/)	YES	☒
27	Confirm that you are aware that you need to keep all data until after your research has completed or the end of your funding	YES	☒

SECTION K: Declaration

The information which I have provided is correct and complete to the best of my knowledge. I have attempted to identify any risks and issues related to the research activity and acknowledge my obligations and the rights of the participants. In submitting this application I hereby confirm that I undertake to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice which is published on the website: https://www.uwtsd.ac.uk/research/research-ethics/			
1	Signature of applicant:		Date: 10/01/26

For STUDENT Submissions:

2	Director of Studies/ Supervisor:	Laura James	Date: 24-02-2026
3	Signature:	Laura James	

For STAFF Submissions:

4	Academic Director/ Assistant Dean:		Date:
5	Signature:		

Checklist: Please complete the checklist below to ensure that you have completed the form according to the guidelines and attached any required documentation:

☒	I have read the guidance notes supplied before completing the form.
☒	I have completed ALL RELEVANT sections of the form in full.
☒	I confirm that the research activity has received approval in principle
☒	I have attached a copy of final/interim approval from external organisation (where appropriate)
☐	I have attached a full risk assessment (where appropriate) ONLY TICK IF YOU HAVE ATTACHED A FULL RISK ASSESSMENT
☒	I understand that it is my responsibility to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice.
☒	I understand that before commencing data collection all documents aimed at respondents (including information sheets, consent forms, questionnaires, interview schedules etc.) must be confirmed by the DoS/Supervisor, module tutor or Academic Director.

RESEARCH STUDENTS ONLY

Once complete, submit this form via the **MyTSD Doctoral College Portal** at (<https://mytsd.uwtsd.ac.uk>).

**PG2 / E1 FORM****RESEARCH STAFF ONLY**

All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk, with the title 'Ethical Approval' followed by your name.

STUDENTS ON UNDERGRADUATE OR TAUGHT MASTERS PROGRAMMES should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.

Appendix B - Literature Search Strategy

Search strategy	Details
Academic databases and resources	• Google Scholar • EBSCOhost • PubMed • ScienceDirect • Journal of Voice • The International Journal of Speech-Language Pathology • Journal of Speech • University of Wales Trinity St David Library
Core search terms	• “Vocal fatigue” • “Professional voice users” • “Collaborators” • “Underlying causes” • “Management strategies” • “Prevention” • “Reactive management” • “Aetiology” • “Underlying mechanisms” • “Vocal demands” • “Vocal loading” • “Vocal health” • “Vocal hygiene” • “Musicians” • “Musical theatre performers” • “Students” • “Musical Directors” • “Music Producers” • “Mitigation strategies” • “Symptoms” • “Identification scales” • “Definition”
Boolean operators	• AND • OR
Backward citation chaining	Reference lists of relevant papers were reviewed to identify additional literature.

Appendix C - Questionnaire

Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators.

* Indicates required question

Participant Details

Which of the following best describes your primary role? *

- ☐ Professional voice user - Musical theatre performer
- ☐ Professional voice user - Singer/musician
- ☐ Professional musical director
- ☐ Professional music producer
- ☐ Student / 2026 graduate (minimum of two years' vocational training in a voice-focused subject)

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Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators.

* Indicates required question

Vocal Fatigue in Students

Thinking about a busy week within your training or recent training (this could be a regular busy timetable or a week of shows and rehearsals) approximately how many hours per week did you spend singing? *

- ☐ Less than 5 hours
- ☐ 6 - 10 hours
- ☐ 11 - 15 hours
- ☐ 16 - 20 hours
- ☐ 21 - 25 hours
- ☐ 26 - 30 hours
- ☐ More than 30 hours

During the same period, excluding routine day-to-day conversation, approximately how many hours per week were you using your voice for other external activities such as teaching, part-time work, or other extended voice use? *

- ☐ Less than 5 hours
- ☐ 6 - 10 hours
- ☐ 11- 15 hours
- ☐ 16 - 20 hours
- ☐ 21 - 25 hours
- ☐ 21 - 25 hours
- ☐ 26 - 30 hours
- ☐ More than 30 hours

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Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators.

* Indicates required question

Vocal Fatigue in Professional Voice Users

Thinking about your most recent period of professional work within the last 12 months (for example, a week of shows, rehearsals, multiple gigs, or recording sessions) approximately how many hours per week did you spend singing? *

- ☐ Less than 5 hours
- ☐ 6 - 10 hours
- ☐ 11 - 15 hours
- ☐ 16 - 20 hours
- ☐ 21 - 25 hours
- ☐ 26 - 30 hours
- ☐ More than 30 hours

During the same period, excluding routine day-to-day conversation, approximately * how many hours per week were you using your voice for other professional activities such as teaching, meetings, or other work-related voice use?

- ☐ Less than 5 hours
- ☐ 6 - 10 hours
- ☐ 11- 15 hours
- ☐ 16 - 20 hours
- ☐ 21 - 25 hours
- ☐ 26 - 30 hours
- ☐ More than 30 hours

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Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators.

* Indicates required question

Current Understanding of Vocal Fatigue

How familiar are you with the concept of vocal fatigue? *

- ☐ Very familiar
- ☐ Somewhat familiar
- ☐ Heard of it but unsure of its' meaning
- ☐ Not familiar

Please describe vocal fatigue in your own words. *

Your answer

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Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators.

* Indicates required question

Identification, Contributing Factors and Management

Do you believe you have ever experienced vocal fatigue? *

- ☐ Yes
- ☐ No
- ☐ Unsure

How confident do you feel in your ability to recognise vocal fatigue? *

- | | | | | | | |
|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| | 1 | 2 | 3 | 4 | 5 | |
| Not confident at all | ☐ | ☐ | ☐ | ☐ | ☐ | Very confident |

Please select any symptoms you have experienced when feeling vocally fatigued: *

- ☐ Discomfort in the laryngeal region
- ☐ Reduced overall vocal power
- ☐ Reduced vocal flexibility
- ☐ Temporary loss of voice
- ☐ Reduced control of the voice
- ☐ Not applicable / I have not experienced vocal fatigue
- ☐ Other: _____

What factors do you believe may have contributed to you feeling vocally fatigued? *
Please list as many as you feel are relevant.

Your answer

Do you use any strategies to manage vocal fatigue when it occurs? *

- ☐ Yes
- ☐ No
- ☐ Unsure
- ☐ Not applicable / I have not experienced vocal fatigue

If you answered **yes** or **unsure**, please detail these strategies below and how helpful you find them.

Your answer

Do you use any strategies in an attempt to prevent vocal fatigue from occurring? *

- ☐ Yes
- ☐ No
- ☐ Unsure

If you answered **yes** or **unsure**, please detail these strategies below and how effective you find them.

Your answer

When you experience vocal fatigue, which of the following emotional responses, if ^{*} any, do you experience? Select all that apply.

- ☐ Anxiety
- ☐ Stress
- ☐ Embarrassment
- ☐ Low mood
- ☐ Frustration
- ☐ Reduced confidence
- ☐ No emotional impact
- ☐ Not applicable / I have not experienced vocal fatigue
- ☐ Other: _____

How comfortable do you feel discussing vocal fatigue with professional collaborators, such as musical directors, music producers, choreographers or others in similar roles? ^{*}

- ☐ Very comfortable
- ☐ Comfortable
- ☐ Neither comfortable or uncomfortable
- ☐ Uncomfortable
- ☐ Would not discuss

If you would like to expand on your answer, please do so below.

Your answer

Are there any aspects of vocal fatigue that you would benefit from learning more ^{*} about? If so, please detail below.

Your answer

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Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators.

* Indicates required question

Identification, Contributing Factors and Management

Do you believe you have ever worked with a singer/performer who was experiencing vocal fatigue? *

- ☐ Yes
- ☐ No
- ☐ Unsure

How confident would you feel in your ability to recognise if a singer/performer was vocally fatigued? *

	1	2	3	4	5	
Not confident at all	☐	☐	☐	☐	☐	Very confident

What factors do you believe may contribute to a singer/performer becoming vocally fatigued? Please list as many as you feel are relevant. *

Your answer

Are you aware of any strategies that may help a singer/performer to manage vocal fatigue when it occurs? *

- ☐ Yes
- ☐ No
- ☐ Unsure

If you answered **yes** or **unsure**, please detail these strategies below.

Your answer

If you have experienced working with a singer/performer who was experiencing vocal fatigue, have you noted any emotional responses? If so, please select any that apply. *

- ☐ Anxiety
- ☐ Stress
- ☐ Embarrassment
- ☐ Low mood
- ☐ Frustration
- ☐ Reduced confidence
- ☐ No emotional impact
- ☐ Other: _____

How comfortable do you feel discussing vocal fatigue with singers/performers? *

- ☐ Very comfortable
- ☐ Comfortable
- ☐ Neither comfortable or uncomfortable
- ☐ Uncomfortable
- ☐ Very uncomfortable / would not discuss

If you would like to expand on your answer, please do so below.

Your answer

Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below. *

Your answer

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Appendix D - Recruitment Message

Hello,
I hope you're well.

I'm currently completing my Master's degree in Vocal Pedagogy with the Voice Study Centre and for my final module I'm conducting an ethics-approved study exploring vocal fatigue in professional voice users and their collaborators. The study aims to contribute to a better understanding of vocal fatigue in the professional voice field. If you are:

- A musical theatre performer and have performed professionally within the last year
- A professional working musician/singer
- A music producer working with vocalists/professional voice users
- A professional musical director
- A student (or 2026 graduate) enrolled on a predominantly voice based degree and have completed a minimum of two years of training

I would be so grateful if you could take part.

I've attached a short questionnaire (around 10 minutes). Participation is completely voluntary and responses will be anonymised. if you are happy to take part, I'd really appreciate your time.

Thank you so so much!

<https://docs.google.com/forms/d/e/1FAIpQLSfKOU8ySc94UcmJ1k2DbnLJGOWhvDNE4BnEUOmlp09z0RBBPg/viewform?usp=header>

Appendix E - Questionnaire Consent form & Participant Info sheet

Section 1 of 10

Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators.

Form description

Participant Information

Principal Investigator

Kasia Howley

kasiahowley@gmail.com

Supervisor

Dr Claire Thomas

Purpose of the Study

The purpose of this research project is to explore how professional voice users and those who work alongside them perceive, identify and manage experiences of vocal fatigue within their daily professional practice. The study will examine these processes in relation to self-reported recognition of vocal fatigue, strategies used to manage symptoms, and approaches to prevention.

Following initial data collection, participants will be provided with a research-informed educational guide addressing vocal fatigue, including commonly discussed subtypes, contributing factors, management strategies and preventative considerations. Participants will then reflect on whether this guide informs their understanding, provides new perspectives, or suggests potential changes to their professional practice.

Participant Involvement

You have been invited to participate in this study because you meet the participant criteria as either a professional voice user, a student in professional training for a minimum of two years, a professional musical director or music producer. Participation in this study will involve completing a questionnaire. Participants will also have the option to volunteer for a follow-up semi-structured focus group and/or interview.

Response Guidance

This questionnaire explores individual experiences and perceptions of vocal fatigue. There are no correct or incorrect responses, and participants are encouraged to answer honestly and authentically based on their own experiences.

Duration

The questionnaire is expected to take no longer than 10 minutes to complete. Focus groups will last up to 45 minutes, and individual interviews will last approximately 20 minutes. All sessions will be conducted online via Zoom.

Confidentiality & Data Protection

All data will be handled confidentially and in accordance with the UK General Data Protection Regulation (UK GDPR) and the Data Protection Act 2018. Participant data will be anonymised and stored securely on encrypted systems, with access restricted to the researcher and supervisor. Anonymised data may be viewed by authorised markers/examiners and moderators.

Voluntary Participation and Withdrawal

Participation in this study is completely voluntary. Participants may decline to answer any question and may withdraw from the study without providing a reason by contacting the principal investigator using the details provided above. Please note that anonymous questionnaire responses may not be removable after submission, as they cannot be linked to individual participants. Choosing not to participate, or deciding to withdraw from the study, will not affect you in any way.

This study has been reviewed and approved through the University of Wales Trinity Saint David research ethics approval process.

Participant Consent



By giving my consent, I confirm that:

- I have read and understood the participant information provided above.
- I am aged 18 years or over.
- I understand that my participation is voluntary.
- I understand that I may withdraw from the study in accordance with the withdrawal information provided above.
- I understand that I will not receive any direct personal benefit from participating in this research study.
- I understand that all information provided will be treated confidentially and that my identity will remain anonymous in any reports, publications or presentations that are produced from the research study.
- I understand that anonymised extracts from questionnaires, interviews, or focus groups may be quoted in the final research paper and/or presentation.
- I understand that information on appropriate professional support services will be available to participants if needed.
- I understand that if I volunteer and am invited to partake in the focus groups or individual interviews, audio recordings will be stored securely in password protected cloud storage. Audio/visual data will be transcribed and the transcripts also stored securely in password protected storage. All data will be retained until the final results of the Master's course have been confirmed.
- I understand that my data will be handled in accordance with UK GDPR and the University of Wales Trinity Saint David data protection policies.

☐ I consent to participate in this study

Appendix F - Questionnaire: Focus Group/Interview Participation Request

Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators.

* Indicates required question

Next Stages

Thank you for taking the time to complete this questionnaire. The next phase of this research involves focus groups and short individual interviews. These will explore participants' experiences and perspectives in greater depth following engagement with a research-informed educational guide on vocal fatigue. Your continued participation would be greatly appreciated and support the ongoing research into vocal fatigue.

Please indicate if you would be willing to participate in any of the following. *
Participants will not be selected for both stages, and selection will be made using a randomisation process. Therefore, there is a possibility you may not be selected.

- ☐ Small focus group (45 minutes)
- ☐ Individual Interview (20 minutes)
- ☐ Neither

If you have selected either of the above options, please provide your **full name** * and **email address** below. This information will only be used for arranging participation in the next stage of the study.

If you selected **neither**, please write N/A.

Your answer

[Back](#)[Submit](#)[Clear form](#)

Appendix G - Focus Group/Interview Invitation and Confirmation

Hello,

I hope you're well.

Thank you for taking the time to complete the recent questionnaire and for expressing your interest in participating in the next stage of my research. I am very grateful for your time!

Following a random selection process, I am pleased to let you know that you have been selected to take part in an individual interview.

The interview will last no longer than **20 minutes** and will involve a semi-structured discussion exploring your perceptions and practices relating to vocal fatigue.

As part of the next stage of research, I will also send you the short educational guide that I am currently developing, prior to the interview. This will give you an opportunity to read through beforehand so we can discuss any thoughts, feedback and suggestions during the interview. It shouldn't take you longer than 5/10 minutes to read!

I have attached a short availability poll below with a selection of dates and times for next week. If you could complete this at your earliest convenience, selecting any times/dates that work for you, I will get back to you as soon as possible to confirm your interview date and time.

https://docs.google.com/forms/d/e/1FAIpQLSf2bdpNtnBvOf44s6uWOCcC1pcvbkELkMvYa5_zGRUZTUpbfQ/viewform?usp=header

The interview will be held via **Zoom**, and I will send the meeting link on the day.

Thank you again for your willingness to participate. This study wouldn't be possible without volunteers and I really do appreciate your time and contribution.

Look forward to speaking soon!

Hi

Hope you're well!

Thank you for responding to the availability form. I have scheduled your interview, which will be held via Zoom on the following date and time:

I have attached the Zoom link for our interview at the bottom of this email. To help the interview run smoothly, please could you join from a quiet environment if possible and, if available, join using a laptop rather than a phone. Please ensure you have access to a working microphone, this can be the built-in microphone on your device, no additional equipment required.

Please keep your camera switched on during the interview. This will allow me to confirm your identity as a participant and support the interview process. Please be assured that your information will be completely anonymised during analysis and any reporting of findings.

As a reminder, the interview will involve a semi-structured discussion exploring your perceptions and practices relating to vocal fatigue, followed by a discussion surrounding my educational guide currently in development, where you will have the opportunity to share your thoughts and feedback.

I have included the link below to the digital version of the guide:

<https://online.flippingbook.com/view/353775006/>

Password -

If you have 5 minutes to take a look at the guide before our interview, that would be great. Please note that this guide was developed as part of my previous module and is currently still in development, so I kindly ask that it is not shared.

Before we begin the interview, I will briefly revisit the participant information, explain the interview process and provide an opportunity for you to ask questions before we start.

Thank you again for your time and support, I really do appreciate it.

Kasia Howley is inviting you to a scheduled Zoom meeting.

Hello,

I hope you're well.

Thank you for taking the time to complete the recent questionnaire and for expressing your interest in participating in the next stage of my research. I am very grateful for your time!

Following a random selection process, I am pleased to let you know that you have been selected to take part in one of the focus groups.

The focus group will last no longer than **45 minutes** and will involve a semi-structured discussion exploring your perceptions and practices relating to vocal fatigue. You will be participating alongside other professional voice users.

As part of the next stage of research, I will also send you the short educational guide that I am currently developing, prior to the focus group. This will give you an opportunity to read through beforehand so we can discuss any thoughts, feedback and suggestions during the session. It shouldn't take you longer than 5/10 minutes to read!

I have attached a short availability poll below with a selection of dates and times for next week. If you could complete this at your earliest convenience, selecting any times/dates that work for you, I will schedule a time that works for all participants and confirm as soon as possible.

https://docs.google.com/forms/d/e/1FAIpQLSeEi9iBe5D_Nb5mUi56cRVLLqNheDLZz9z6x-uW65Lske9kTg/viewform?usp=header

The focus group will be held via **Zoom**, and I will send the meeting link on the day.

Thank you again for your willingness to participate. This study wouldn't be possible without volunteers and I really do appreciate your time and contribution.

Look forward to speaking soon!

Best Wishes,

Hi everyone,

I hope you're well!

I have scheduled the focus group, which will be held via Zoom on the following date and time:

I have attached the Zoom link for our focus group at the bottom of this email. To help the session run smoothly, please could you join from a quiet environment where possible, and if available, join using a laptop rather than a phone. Please ensure you have access to a working microphone, this can be the built-in microphone on your device, so no additional equipment is required.

Please keep your camera switched on during the focus group. This will allow me to confirm your identity as a participant and also support the group discussion. Please be assured that your information will be anonymised during analysis and any reporting of findings.

I have included the link below to the digital version of my educational guide in development:

<https://online.flippingbook.com/view/353775006/>

Password -

If you have 5/10 minutes to take a look at the guide before the focus group, that would be greatly appreciated, as it will help the session run smoothly and support a meaningful discussion. Please note that this guide was developed as part of my previous module and is currently still in development, so I kindly ask that it is not shared.

Before we begin the focus group, I will briefly revisit the participant information, explain the session format and provide an opportunity for you to ask any questions before we start.

Thank you again for your time and support, I really do appreciate it.

Look forward to seeing you all on Thursday (virtually!)

Kasia Howley is inviting you to a scheduled Zoom meeting.

Appendix H - Interview Coding

P2-MP - Interview Coding

P2 - Interview

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
Music Producer Interview P2	Kasia Howley: So to start, could you just tell me a bit about your background, like, how you work with singers, and what you do, day to day?	
P2	P2: So, I probably don't work with singers so much as much anymore, but definitely before like kind of my career got started recording people, but it was mostly rappers. I guess a bit different to singers, but yeah, I guess they still get vocal fatigue.	C187 - Recognition of vocal fatigue across different types of professional voice users
P2	P2: But in a bit of a different way, but yeah, I've mostly worked with rappers, and then	
P2	P2: worked with quite a few singers last year, but, I'm mostly kind of just doing my own music production stuff now.	
P2	Kasia Howley: Yeah, and when you did work with them, was that producing their own material, or was that bringing them to do stuff for you?	
P2	P2: A mix of everything, really. Sometimes it'd just be like, oh, I've got... they've got a song they want to record, and they've got everything, or, like, they might want to work a bit...	
P2	P2: more closely in terms of, like, actually me producing the whole song, or sometimes I might have something already and think they would suit it, and then get them in on it, sort of thing. So, yeah, all different ways, really.	
P2	Kasia Howley: Okay, so in terms of like vocal fatigue, in your profession, how would you, what does it kind of mean to you? How would you sort of explain it?	
P2	P2: To me, it's just, like... When,	
P2	P2: I think I put this on the questionnaire, but just, like, when you use... how I would imagine it is, like, say you're doing bicep curls, and your arms get tired, and then you can't do the bicep curls as well. I imagine it's a similar thing.	C188 - Comparison of vocal fatigue to muscular fatigue
P2	P2: With singing and, like, if you're doing the wrong technique when you're exercising, then it can obviously happen, like, much faster or worse or, you know, result in injury and stuff like that, so I just kind of see it as similar to exercising, I guess.	C189 - Poor technique causing fatigue
P2	Kasia Howley: And do you think, in your industry, music production, do you think it's sort of a term that's commonly used, that people talk about?	
P2	P2: I wouldn't, I wouldn't say so, no, I wouldn't really say I've ever really heard	
P2	P2: People talk about it other than like.	
P2	P2: say, like, a singer that I might know might have done, like, 3 gigs at the weekend, and they're like, oh, my voice is not good, sort of thing.	C190 - Limited discussion around vocal fatigue in music production contexts
P2	P2: It wouldn't really... yeah, not in a... in that sort of way.	
P2	Kasia Howley: Yeah, and in terms of like when you have worked with singers and when you do bring them in and even rappers, because that's quite important as well. How would you say that you could hear, or if you could hear, if they are vocally fatigued? That could be like physical behaviour	
P2	Kasia Howley: anything like that, or audible?	
P2	P2: I think probably with a singer, it's a bit more obvious, because, like, maybe they're just not, like, hitting the notes that they could usually hit, or...	C16 - Reduced vocal flexibility
P2	P2: Quite certainly, you know, if it's a higher bit or out of their range or whatever, they might be struggling, and I think they're a bit more open to saying they're struggling than what a rapper is, maybe.	C33 - Different demands of material
P2	Kasia Howley: Interesting.	
P2	P2: I think, yeah, when I've seen it with rappers, it's more just, like, start to lose a	
P2	P2: Stuff like that, probably because it's a bit more	
P2	P2: Like, shouty, I guess, but...	
P2	Kasia Howley: And that's really interesting to know, because it's a completely different perspective. So, like, with rappers, when they're recording, and they start to lose their voice, do they power through it? how do they approach that?	
P2	P2: I think they'd power through it and then say they're not happy with it at the end and they're gonna have to redo it.	C22 - Pushing through vocal difficulties C191 - Multiple takes required due to vocal fatigue
P2	Kasia Howley: Yeah, sure.	
P2	P2: Yeah	
P2	Kasia Howley: And would they put that on you or themselves?	
P2	P2: I think they'd just be like, oh, I don't like how I sound on that.	
P2	P2: Sort of thing. Yeah, I don't think.	
P2	P2: Maybe sometimes they put it on me if they think it's, if they don't really identify what it actually is.	
P2	Kasia Howley: Hmm	
P2	P2: They might not realise, but I've never really thought about that, I suppose.	
P2	Kasia Howley: No, no, that's interesting.	
P2	Kasia Howley: do they pay for their time?	
P2	Kasia Howley: With you.	
P2	P2: It's kind of like every situation.	
P2	P2: It's different, really, so, like, sometimes I could be collaborating with someone or, like.	
P2	Kasia Howley: Yes.	
P2	P2: Before, like I say, like, when I was, like, first got going, that's mostly what I did, like, people paid me to record them and then mix and master and whatnot.	
P2	Kasia Howley: So if they, like, were vocally fatigued in a session and they weren't happy with it, would that be on them to sort another session out for themselves, with you?	
P2	P2: Yeah, basically, yeah. I think that I've seen people get like really frustrated about it.	
P2	P2: I think they're not because they've like kind of they might have traveled and then they've obviously paid to be here and then they're not getting the results that they're hoped for.	C192 - Financial consequences and pressures of vocal fatigue for musicians
P2	Kasia Howley: Yeah. And I.	
P2	P2: Sometimes, like...	
P2	P2: Especially if they've traveled far, they might book, like, a really long session and try to do loads in one day, and then towards the end of it, like, they're not getting the best...	C193 - Decline in vocal performance during prolonged recording sessions
P2	P2: version of themselves.	
P2	Kasia Howley: Yeah, that's interesting. That's a really good point. Do you feel like if someone is vocally fatigued, be it a singer or a rapper?	
P2	Kasia Howley: Do they kind of come in knowing that they're in that position or do you feel like	
P2	Kasia Howley: They only acknowledge it once they're actually hearing it?	
P2	P2: I think I've...	
P2	P2: come across the odd person who's... maybe knows I've had, like, a big weekend of gigging and been, like...	
P2	P2: I'm not gonna do a lot today, my, like, you know, voice is really tired, but I'd say I've come across, like, a couple of people that have done that, but mostly, yeah, I don't think.	
P2	Kasia Howley: Yes.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P2	P2: I think usually people might be like, oh, I've got a bit of a sore throat today, so I don't know what I'm gonna be like, but I don't think they'd be like, oh, I'm vocally fatigued.	C194 - Sore throat OR vocal fatigue?
P2	Kasia Howley: Yeah, yeah.	
P2	Kasia Howley: Yeah, interesting. And, like, what do you think, as a producer, like, could contribute to someone being, vocally fatigued?	
P2	P2: Eh... I think, obviously, just if you're doing something for long hours every day, then that's...	C8 - High vocal workload
P2	Kasia Howley: Yes.	
P2	P2: gonna take some sort of toll, but I feel like a big part could be just not the right technique. But I'm not a singer myself, so I don't really know.	C189 - Poor technique causing fatigue C195 - Recognition of limited knowledge surrounding vocal fatigue
P2	Kasia Howley: Yeah, yeah, but it's, it's interesting perspective because you still hear them and work with them.	
P2	Kasia Howley: And like, in terms of if they were fatigued in a session, what would your sort of approach be if they sort of started voicing that they were?	
P2	P2: I guess everyone's different, so... Yeah.	
P2	P2: I...	
P2	P2: kind of have to tackle it different, but my go-to is usually just to kind of, like, leave it for today and, like, come back to it another day, because, like, we're not going to get the results that we want, and it's not doing them any good. Like...	C196 - Postponing sessions to facilitate recovery
P2	P2: Pushing on, so I might just do something else, or just call it a day.	
P2	Kasia Howley: Yeah. And do you have any ideas of management strategies or ways that people can sort of manage vocal fatigue?	
P2	P2: I haven't got a clue, to be honest	C197 - Limited knowledge of management strategies
P2	Kasia Howley: No worries! Has anyone ever, in a session,	
P2	Kasia Howley: tried to manage it, whether that be like hydration or anything that you've seen, if they do start to get stressed about their voice or anything like that?	
P2	P2: Yeah, I mean, I've definitely seen people go for water and stuff. I've seen people, like,	
P2	P2: I think people say, like, certain teas and stuff, like mint teas, or peppermint mint teas, or whatever. I don't know if there's any truth behind that, but,	C198 - Discussion of vocal myths, herbal teas
P2	Kasia Howley: No, it's really good to know, from that sort of perspective.	
P2	P2: Yeah, [client] used to have this, like... steamer thing?	
P2	Kasia Howley: Yeah, was it a nebuliser, or a steamer, was it like,	
P2	Kasia Howley: Ceramic with boiling water?	
P2	P2: No, it's like, it's really quite, it was quite small, handheld [gestures to hold in front of mouth]	
P2	Kasia Howley: Yeah, Nebuliser	
P2	P2: Yeah, yeah. Yeah, but he's the only person I've ever seen use one of them. Yeah.	
P2	P2: But, yeah, and other than that, just, like, kind of singing softer for the day and... Yeah. Yeah, taking it easy, really, but...	
P2	P2: Nothing other than that.	
P2	Kasia Howley: And do you feel like you would feel comfortable?	
P2	Kasia Howley: sort of chatting to someone about it, if their voice wasn't performing at the level it usually does, or, like, they were saying they were... they had a sore throat, like you said, or, like, they were fatigued. Would you... would you chat to them about it?	
P2	P2: I think it probably depends... who it was...	
P2	P2: And how well I know them and if it felt.	C199 - Communication influenced by relationship in the studio
P2	P2: If I felt like I had a good way to approach it, but I feel like kind of telling.	
P2	P2: someone they're not singing very well today is, like... I feel like musicians can be very sensitive, and I feel like if it's a guitar player and you're, like, you're not playing very well, I think that's a lot different to telling someone they're not singing very well, because I feel like it feels more personal for some reason.	C200 - Difficulty to discuss vocal fatigue without offending
P2	P2: I feel like some people can be obviously quite touchy about that if you tell them they're not doing a good job. I mean, anyone would be. So I think it's kind of hard to...	C175 - Voice is identity
P2	Kasia Howley: Yeah	
P2	Kasia Howley: It is like, it is that personal level and it's, it's, you, you are in a position where often I imagine it's just you and the singer in the room?	
P2	P2: Yeah.	
P2	Kasia Howley: So, are there ever any times where someone is struggling, and...	
P2	Kasia Howley: I suppose you're in that position where they not look to you for guidance, but if it's not going very well.	
P2	P2: Yes, sometimes I feel like the some people have looked for like the. I can't think of the word right now, but.	
P2	P2: I know, like, the,	
P2	P2: The encouragement that it's like, okay, to, to like, not be good today, like, if they're like, oh, I'm not, like.	C201 - Musicians seeking reassurance to stop session
P2	P2: I need to just be like, yeah, it's OK, let's just leave it for today, but I don't.	
P2	Kasia Howley: Yes, they almost want reassurance in a way.	
P2	P2: Yeah, that's the word!	
P2	Kasia Howley: Yeah. Yeah. No, that's interesting. And if you, like, ever...	
P2	Kasia Howley: did need any information on, like, vocal fatigue, or if you needed, you know, you had someone that was experiencing it frequently, Where would you look for, like, information?	
P2	P2: I don't really know, to be honest, but I'd probably... if I was to advise someone on what to do who's having that trouble, I'd probably tell them.	
P2	P2: Not in a, like, horrible way, but maybe to look for, like, a singing lesson in, like, a... like, not to get better at singing, but, you know, to, like, make sure they're doing the correct technique.	C202 - Singing lessons as an aid for vocal maintenance C203 - Stigma associated with singing lessons
P2	Kasia Howley: That's a really interesting point that you said that, it's kind of come up before, like, in the way of...	
P2	Kasia Howley: Do you think singing lessons can be looked at as, like you need to get better?	
P2	Kasia Howley: Rather than, like, you know, going to the gym is maintenance, isn't it? Like, it's not necessarily... Yeah. Do you think singing lessons are looked at sometimes a bit differently?	
P2	P2: Yeah, definitely, I think so, yeah. I feel like if some people can, like...	
P2	P2: sing in a sense that they can hit the notes, and get through a song sort of thing, and it sound good, then it's like... I feel like then they feel like, oh, that's it, I can sing. But I feel like there's probably a lot more...	
P2	P2: to it.	
P2	Kasia Howley: Yeah.	
P2	P2: And, like, to go back to the, like, how it's different to, like, if you play guitar or drums, I think they	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P2	P2: levels to it, I guess.	
P2	Kasia Howley: Mmm.	
P2	Kasia Howley: That's really interesting. It's interesting how you said it then, in like a, you know, you don't want to be offensive saying you need singing lessons.	
P2	Kasia Howley: if people in the studio are, like, feeling tired and vocally fatigued, if they're not open about it, do you feel like people sort of manage their voice before a session, or do you feel like people	
P2	Kasia Howley: try sort it out when it's when the problem has occurred?	
P2	P2: I think when the problem has occurred	C60 - Reactive management of vocal fatigue over prevention
P2	P2: Yeah, there's definitely like... I very rarely see people warm up.	
P2	P2: Or anything like that, so I would say it's definitely like a.	
P2	P2: Sort out when the problem occurs.	
P2	Kasia Howley: Mmm.	
P2	P2: I don't really see people doing prevention.	
P2	Kasia Howley: Yeah.	
P2	P2: Or prepping themselves before or during a session, I guess.	C204 - Limited use of warm ups in recording sessions
P2	Kasia Howley: that's really interesting. So the next part is, I've got this guide that I created in the last module of my masters. So it's all based on the research that's out there but it's very much still being refined.	
P2	Kasia Howley: So I can put it up on this screen, or have you got it on your laptop there?	
P2	P2: Is it, is it the one you email.	
P2	Kasia Howley: Yeah it is!	
P2	P2: Yeah, yeah, I've got it, yeah.	
P2	Kasia Howley: So yeah, if you want to take a couple minutes to look at it now, or if you're happy to chat about it now, just any thoughts you had when reading it, if there's anything interesting, anything that's affirmed your current perspective, or anything new?	
P2	P2: In terms of, like, the content, so just, like, how it looks, or?	
P2	Kasia Howley: All of it, anything you think!	
P2	Kasia Howley: I've given everyone a few minutes to look at it again,	
P2	Kasia Howley: So I'll turn my camera off, and then I'll put my camera back on in a few minutes!	
P2	P2: No problem.	
P2	Kasia Howley: So any thoughts you have? Anything that initially springs to mind.	
P2	P2: I mean, I think it's really good, first of all. Super easy to understand and, like, really clear and, like, tons of information. But, like, in a good way, like, it's not overwhelming.	C72 - Clear and accessible design
P2	Kasia Howley: Alright, good.	
P2	P2: Yeah. So yeah, it's really good.	
P2	P2: I mean, the only... are you looking for ideas of what else could be on.	
P2	Kasia Howley: Yeah, and I mean, like, I'm not a graphic designer, by any means, so, like, the sort of... the way it's structured has been...	
P2	Kasia Howley: It's been created in a way of, after researching, how people learn and digest information in terms of colours and content but, you know is it good to be a leaflet? Could it be a booklet? Could it be something more interactive? You know, if there's any thoughts in that sort of way, that would be good!	
P2	P2: Ehhh... I mean, I think it was really good, to be honest.	
P2	Kasia Howley: That's great!	
P2	P2: That was like something you'd get at like the doctor's or something if you'd like wanted to understand more!	C205 - Perceived as credible healthcare style resource
P2	Kasia Howley: Yes.	
P2	P2: I think it's, I think it's perfect. I feel like the only thing.	
P2	P2: Like, if I was to add another section, I would, like, maybe say the dangers are, like, if you didn't address it?	C206 - Suggested inclusion of dangers to instil fear into singers
P2	P2: But I don't know.	
P2	Kasia Howley: Yeah. That was something that, is in consideration. My question would be, and the worry that I had was, do you think having a danger page would scare singers?	
P2	P2: Yeah, but in a good way, probably.	
P2	Kasia Howley: Okay, yeah!	
P2	P2: Only but, like...	
P2	P2: For example, like, I remember getting told, like, oh, you should wear ear protection. Yeah. And, like, and, like.	
P2	P2: like, the reason why is obviously to protect your hearing, but maybe, like, until maybe I realized that, like, oh, you might not be able to hear when you're 50, or, like, kind of, like.	
P2	Kasia Howley: Yeah.	
P2	P2: That's what scares you into doing it. I suppose people react differently to stuff	
P2	Kasia Howley: Yeah, maybe it needs another page that is at the end!	
P2	P2: Yeah.	
P2	Kasia Howley: No, for sure, and how do you think, like, it could be beneficial in, I suppose, your profession? Like, is there any way that you think music producers could benefit from it? Could it be used?	
P2	P2: Well, yeah, definitely. I mean, obviously, like, just, like I said, people coming in and getting frustrated and not getting stuff done, like, it would help if...	C207 - Education for music producers and musicians can enable more productive sessions
P2	P2: you know, if I could tell people, they already knew that you'd obviously get then more productive sessions, and they'd get more out of it, and I'd get...	
P2	P2: More out of it as well, so...	
P2	P2: Yeah, I mean here, like obviously here at [the studio], is like a perfect place to have something like that, like either in a leaflet or like a poster on the wall.	C82 - Workplace distribution of fatigue resources
P2	Kasia Howley: Yeah!	
P2	Kasia Howley: Yeah, so is there anything else you'd want to add to it or anything that we've said today, that you want to expand on?	
P2	P2: There's nothing on my mind right now!	
P2	Kasia Howley: That's great. Well, I'll stop the recording now. Thank you!	

P8-M - Interview Coding

P8 Interview

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
Musician - Interview - P8	Kasia Howley: To start, could you just tell me a little bit about how you use your voice, in your professional life?	
P8	P8: Perfect.	
P8	P8: Me, I use it, like, because I'm.	
P8	P8: I'm a multi-professional, I sing, but also I work full-time in marketing as well, so I'm regularly using my voice, like, speaking voice, at least 6-7 hours a day, whether it's, like, through events or meetings and stuff.	C9 - Multiple professional roles
P8	P8: And then when I'm not doing that, I also sing, in the evening	C4 - Demanding daily schedule
P8	P8: And also regularly practicing, whether it's in the car, like, any moment I can get, so for me, like, I'm.	
P8	P8: Always using my voice,	
P8	P8: I feel like its something that I...	
P8	P8: I have to do, like, it's part of my identity, but yeah, I mean	C175 - Voice as identity
P8	P8: Yeah, that's, that's probably that, to be honest.	
P8	Kasia Howley: Yeah! If someone said the words vocal fatigue to you, what would it mean to you?	
P8	P8: Vocal fatigue to me is just	
P8	P8: It's kind of like burnout, like life burnout, but for the voice, it's kind of when you feel,	C208 - Vocal fatigue described as burnout
P8	P8: you've used it too much, and you haven't looked after it. I mean, I don't know, it's hard not to have, like, a negative connotation linked with vocal fatigue.	C209 - Negative connotations towards vocal fatigue
P8	Kasia Howley: that's an interesting point	
P8	P8: Yeah, like if me, it's like a.	
P8	P8: something that I always try and avoid as much as possible, so, like, I'm... I think, especially with, like, the way that I've been taught, more recently as well, like, I want to...	
P8	P8: be more preventative than let it, like, go all the way to the end point, where I then have to go, okay, I need to try and fix it quickly, because it just adds more stress to my life. So I think, for me, that's... that's where I	C210 - Prevention prioritised over management
P8	P8: I've changed as I've grown older, because I don't... I don't know, like, I don't really have the time to be like, okay, I've lost my voice, or what am I going to do now? Like, especially in the music game as well, like, opportunities can be around the corner. So, like, if you're suffering with, like, severe vocal fatigue.	C64 - Generational differences C211 - Perceived career consequences of vocal fatigue
P8	P8: That could potentially be life changing,	
P8	P8: So yeah, my association with it is more like dramatic than it is like, oh, I'm a little bit tired.	
P8	Kasia Howley: Going off from what you said there,, you said, it's hard to, like, not associate negative connotations with it	
P8	Kasia Howley: Would you associate negative connotations with being tired?	
P8	P8: Yeah, but I think, I think it's.	
P8	P8: Fatigue as well, like it's	
P8	P8: I guess the only positive on it is that fatigue does come from just working hard, but then it kind of contradicts that.	
P8	P8: a lot of singing	
P8	P8: And a lot of the practice I've done, it's around like not working hard. It's kind of supposed to feel like less effort a lot of the time and being quite like clever with how you use your voice.	C212 - Efficient vocal technique reduces effort
P8	P8: And that obviously doesn't involve, like, shouting or using bad technique. So, I think, I don't know, when I know I'm... when I know I've sang well, or I've practiced well, I don't necessarily feel vocal fatigue. I think vocal fatigue comes from outside, third-party things, not necessarily through singing.	C213-Vocal fatigue not always from singing
P8	Kasia Howley: Good point.	
P8	Kasia Howley: I like how you've said that in a way because people do associate being tired with working hard.	
P8	P8: Yes.	
P8	P8: I mean, it's... yeah, because it's	
P8	P8: I guess there's two types of vocal fatigue. One is, like, for me, where I'm sick, where, like, my voice is actually just getting hit hard there, and then the other one would be just, like, overuse	C214 - Multiple types of vocal fatigue
P8	P8: not singing correctly, or just shouting, or like, but then again, like, if you go to, like, a football match or something like that, where you are shouting, obviously you can get vocal fatigue, you know, but I guess there's, like, different stages. I think the one that frustrates me the most is the	
P8	P8: A long period where I've.	
P8	P8: I I just feel like I've like beaten down my voice again and again and again and there's no recovery and I've only had a few times where I like	
P8	P8: I used to teach, and I used to use my voice regularly.	
P8	P8: And I just felt I was so nervous that I had to kind of like that was 1 of the reasons why I quit because I just felt that.	
P8	P8: I mean, it wasn't just, like, regular one-to-one teaching, it was, like, a group of, like, 30, 40, 50 kids, where you just have to use your voice in a way that isn't always like healthy,	C11- "shouting over louder music"
P8	P8: So, yeah, but no, I think it's, I don't know, vocal fatigue is such a broad subject	C215 - Vocal fatigue multifaceted condition
P8	P8: I don't know, there's so many different ways where you can be tired and there's also levels of like how bad the fatigue is.	C214 - Multiple types of vocal fatigue C216 - Scale of vocal fatigue
P8	Kasia Howley: And in terms of, like, when you've experienced it before, what would you say are the, like, common signs, symptoms? And that could be, like, audible, physical, behaviour, emotion.	
P8	P8: I think my early stages.	
P8	P8: It's funny, because early stage is when it goes a little bit, kind of, like, croaky slash husky sound in my speech quality, like, I...	C217 - Musicians sometimes enjoy the vocal quality produced as the onset of vocal fatigue
P8	P8: sometimes it's quite nice to record on that, so I don't see that as a negative, but I guess the physical things which are the hardest is when, like, my voice feels like it's, like, my whole neck and throat feels really tight, and then I'm concerned that I'm then going to lose my voice, because is it going to fall, like, you always go, like, is this going to fall into an illness? It's hard to, like.	C89 - Sensation of tightness around tongue and laryngeal region
P8	P8: the differences between is this illness or is this just like high voice. So I think you go into a sense of high, like, I need to drink as much water as I possibly can in a few hours.	C127 - Vocal fatigue causing stress
P8	P8: Through like steaming and all the processes to kind of like.	
P8	P8: Get rid of the fatigue as quickly as possible, but I think sometimes that stress, which is, I guess, another response to the mental side of it, is the thing that sometimes makes it worse. Yeah.	C127 - Vocal fatigue causing stress
P8	P8: So I guess it's like	
P8	P8: brain training yourself, like, don't worry, like, don't stress about it, which is, like, a really hard thing to do when, like I said earlier, like, there's so much on the line for someone like me with my voice, so it's, like, you're always on edge.	
P8	Kasia Howley: Has there ever been an experience where you have been performing live, recording, even practicing in a rehearsal setting maybe, where you have experienced fatigue and you've had to work with it or you didn't work with it?	
P8	P8: Yeah, actually, I had 2 weeks before.	
P8	P8: The last show that I did, I... my voice started to get really bad, like, I think I was just like...	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P8	P8: feeling exhausted because I've just been, like, a house move, and overuse	C10 - Demanding schedule outside of work
P8	P8: because I knew I had two weeks, I was like, right, I have to find... do preventative measures to let... not get it any worse. So I was, like, focusing on, like, sleep, really on, like, hydration, doing all the vocal exercises that I've learned, like, in terms of, like.	C210 - Prevention prioritised over management
P8	P8: End of the day making sure that I'm yeah.	
P8	P8: I can't think of the thing, but like,	
P8	Kasia Howley: Cooling down, or...	
P8	P8: Yeah, cooling down, like, cooling down my voice, and then also trying to, like, not just go straight into speech at the start of the day. And, like, everything that I should usually be trying to do every day, I just was really focused, like, even, like.	C218 - Importance of cool downs
P8	P8: I got this, like, and super expensive like top grade honey.	C219 - Honey to keep on top of voice care
P8	P8: Like, you know, I think I spent like an absolute bomb on it, but I was, and even I also like.	
P8	P8: Everything was like gargling salt water	
P8	P8: It's like all of these different things I was trying, because I was just, I didn't, I didn't want to admit that this would potentially affect something that's going on for me. So, like, that was my process around it, and yeah, I just refused to let myself get so fatigued. I don't know if that's, like, a toxic trait, but I just was like, I need to do this.	C220- Paranoia about getting vocal fatigue
P8	Kasia Howley: in terms of... you said loads of different things there, like your honey, your salt water, those things. Were you doing those things to target specific elements of your fatigue, or were you doing them...	
P8	Kasia Howley: Because...	
P8	P8: Yeah, I mean	
P8	P8: And I felt like	
P8	P8: It just felt very tight here. And the salt water, it did something where like, obviously I think it was an illness as well, but I think it might have been a placebo effect where it just kind of opened up, opened up my throat a lot and like kind of relaxed me.	C198 - Discussion of vocal myths, herbal teas, honey, salt water
P8	P8: Sometimes I think taking action is like the best thing to do for vocal fatigue. Like you can't just, it won't go away by itself. Like it obviously will rest technically.	
P8	P8: But then sometimes I feel like.	
P8	P8: I kind of see myself as like an athlete with my voice in the	
P8	P8: If an athlete has an injury or kind of	
P8	P8: they've got really tight muscles, do they just sleep and rest and hope for the best, or are they getting, like, stretched out properly? Are they using foam rollers? Are they, like, doing all of these things? I think it's the same with the voice, like.	C221 - Voice compared to an athletic instrument
P8	P8: Yes, you have to be preventative stuff, but you also have to build yourself back up to that place to get yourself.	
P8	P8: to where you should be	
P8	Kasia Howley: And strategy wise, what strategies do you know about and know that help you and, or what ones do you, have you heard of maybe?	
P8	P8: Yeah, so I think... A lot of my recent sort of training, has been around kind of.	
P8	P8: Finding the tension points, on your face and your neck and.	
P8	P8: Different areas are there and trying to reduce the stress physically because I think they definitely cause like a lot of.	
P8	P8: enclosure, like, around my throat, especially, kind of, in this, sort of, SCM area, and with me, like, unfortunately, I have, like, a lot of jaw tension as well, so, like, those are the part of the areas that I'm trying to, kind of.	C99 - Self led vocal massage to aid fatigue
P8	P8: Always trying to release tension there. And then.	
P8	P8: Yeah, so so that's that's those things. And then What was the rest of the question? Sorry	
P8	Kasia Howley: You answered yeah! Just in terms of, what you do that helps you, which you said there!	
P8	Kasia Howley: If there's any other things that you use as strategies to manage your own vocal fatigue?	
P8	P8: Yeah,	
P8	P8: I think I have like a limit of when I know like I've got like a singing as long as I have done now like I know when I've got done enough singing or done enough speaking.	
P8	P8: and sometimes it's... I don't know, maybe it's... I feel like a proper adult now, but even if I'm on a night out	
P8	P8: I will go, like, I can't be bothered to deal with, like, having a straight voice, or a quiet voice, so I'll just, like, stop singing, like, stop shouting, or stop singing towards songs, or.	C24 - Recreational voice use
P8	Kasia Howley: That's good, because that is a...like, daily habit, which is, I think, something that maybe people don't class as a strategy.	
P8	Kasia Howley: And when it comes to your steaming, and those sorts of strategies, do you know anything about other ones? Have you heard about them, been told about them?	
P8	P8: The only other one I've been using a lot more is	
P8	P8: Using like the straw with the bubbled water and kind of warming up in that way Again, it means	C222 - Straw/SOVT work to manage the voice
P8	P8: I think with the way that because I'm like quite a heavy thinker so doing stuff.	
P8	P8: That distracts me from the exercise itself, and I kind of go, like, my focus is on the straw.	
P8	P8: my focus is on the steam. It's, like, kind of like a physical thing to take you away from actually singing, or actually warming up, and then it kind of changes my perspective of, like, oh, this is a thing that I'm trying to achieve.	
P8	Kasia Howley: And then, in terms of, like, factors that, like, are contributing to it.	
P8	Kasia Howley: You have shared a few of them, but what do you feel like, for you personally, can cause vocal fatigue?	
P8	P8: I think there's two main ones. One is, like, shouting in an enjoyment sense along, and 9 times out of 10, that's usually involving, like, alcohol and, like, kind of, like, a night out and being around friends, and even, like, sometimes you could have, like, a group of friends where you'd, like, it's really chill	C24 - Recreational voice use C11 - "shouting over louder music"
P8	P8: Like a house or something, or dinner party or whatever, it's that kind of thing, but then you're kind of all speaking over each other	
P8	P8: I've really been speaking a lot.	
P8	P8: I think that that side, I think the other one, but more so for me.	
P8	P8: It's stress within the body.	
P8	P8: And stress in my day and then lack of sleep because I don't know my whole I don't just feel it in my voice and I feel it like everywhere so.	C30 - Relationship between physical and vocal fatigue
P8	P8: I don't know, but I think his voice is so important to me. I, I, I, I'm tuning in more to that than I am, like, you know.	
P8	Kasia Howley: Yeah, that's No, that's a really good point.	
P8	Kasia Howley: And do you feel like in terms of the strategies and in terms of the causes, you have again touched on this a little bit, but do you think, and this could be to you, but also a generic point of view, do you think that fatigue management is done with people sort of prioritising prevention, or do you think people manage it when it occurs?	
P8	P8: I think more people would manage it when it occurs.	C60 - Reactive management of vocal fatigue over prevention
P8	Kasia Howley: Yeah, sure.	
P8	P8: Because I think, you	
P8	P8: I don't know, I think, I think human mentality in a lot of areas of life is more like consequential than it is preventative and I think that is just because of how busy we are and.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P8	P8: just how long it takes, like, kind of going slightly off topic, but, like, people taking it, even myself, like, taking ages to kind of go to therapy for, like, mental health issues, like, we leave it for the last second because we think we can manage it on our own, or kind of, like, you know...	
P8	P8: Staying in an environment as long as possible, like a job, like if it really sucks	
P8	P8: We stay there as long as possible. And then when it's really bad, we go, okay, now we need to leave. And I think that obviously translates into like music and singing and voice work and all of these things too.	C60 - Reactive management of vocal fatigue over prevention
P8	P8: And I don't know, I mean, I went to a drama school that was, Didn't promote, kind of.	
P8	P8: I wouldn't say really promoted preventative measures because of the pace at which people work	C107 - Need for preventative education within training
P8	P8: It's also an industry.	
P8	P8: although I haven't necessarily gone into that industry, like, the musical theatre world do 8 shows a week, I would say that's not a preventative measure. That is a way to, kind of, make money, and then cause an environment which is always going to be consequential. And that's why the people are fighting to it, like.	C223 - Industries make vocal fatigue almost inevitable
P8	P8: I have a friend who works.	
P8	P8: in Sweden as well as he works, in the UK and,	
P8	P8: he's on more money and they only do four shows a week.	
P8	P8: Because they felt like it was more of, like, a buzz to have less shows, so there is more premium, more exclusive, but... and there was so much better for vocal quality. And I think, like, I don't know, even 7 shows would probably make a massive difference to a lot of these performers, especially some of the ranges that people work at. And I also think as well, like.	C224 - Workload reduction as a preventative measure
P8	P8: There's a lot of,	
P8	P8: People who write songs and a lot of people who put on shows on these things and they create music that can never be sung consistently that many times, like Beyonce as a classic example.	C33 - Different demands of material
P8	P8: She can't even sustain her own songs.	
P8	P8: For a long period of time and that's why it is like an inconsistency.	
P8	Kasia Howley: do you feel like being a musician,	
P8	Kasia Howley: because you've got freedom of, I suppose, artistic	
P8	Kasia Howley: decisions. Do you work your voice in a way that supports the demand and vocal fatigue?	
P8	P8: Yeah, I think I	
P8	P8: I think for me, because I lean more into, like, the songwriting piece, and just being really comfortable with how I like my voice to sound, I've kind of... I've made it more around a brand, like, this is my voice brand, and I'm happy with that. I don't feel like I need to...	
P8	P8: chase notes. I mean, I'll always be, like... I think as a singer, you always have that competitive streak where you go, like, I want to hit that Whitney Houston note or whatever	
P8	P8: I don't know I	
P8	P8: I don't like to push it too far, just because I can't evolve it, and also there's a lot, there's a lot of scarce stuff out there. I know it's sometimes around technique, but like the Sam Smiths or Adele's of the world in their early career where they were just pushing to be	C225 - Fear around vocal injury due to celebrity publication
P8	P8: the loudest or	
P8	P8: sing the highest notes. I was never really interested in that because I think my approach to singing is never like showing off. It's more like.	
P8	P8: Doing something that makes people come into my world.	
P8	P8: So yeah, that's, that's kind of my, that was my, like, approach to singing, and I think that's helped me not ever blow out my vocals in.	
P8	Kasia Howley: Yeah, you don't have to feel like, I suppose, the material owns you.	
P8	Kasia Howley: if we do reflect for a couple of minutes on your training previously in musical theatre, do you feel that there is a difference between that material and the level of vocal fatigue to...	
P8	Kasia Howley: How you experience it as a musician.	
P8	P8: Yeah, because I think... I think there's also a lot more restriction in musical theatre, and I understand why that's... that is what it is, especially with the amount of, like, ensemble work in there, and being, like, clean lines, and obviously audiences expect that, but I think because of the restrictions.	C39 - Stylistic vocal demands
P8	P8: if someone sees a spark of talent in someone.	
P8	P8: instead of, kind of, maybe shaping material around them, it's always like, no, you have to sing the highest note, you have to sing exactly this technique, you know?	C230 - Difference of demand between musical theatre and music
P8	P8: No human is the same, so there should be, like, workarounds to achieve the same goal, and we could be.	
P8	P8: It's more on the individual rather than like	
P8	P8: This is the technique that we need to use to achieve the same thing because that's just never gonna work like.	
P8	P8: If that worked in any other profession	
P8	P8: We wouldn't advance as much as we have, and I think that's why I think	
P8	P8: Singing is still behind in those areas because of the.	
P8	P8: I don't know if there's What is it where?	
P8	P8: There's a lot of, teachers and practitioners that have been in the game for so long, and then the new up-and-comers aren't replacing them quick enough, or they aren't, kind of, like, the old-timers aren't, like, working with the newcomers to find, like, new ways.	C231 - Generational divide in vocal education
P8	P8: So there's this disconnection	
P8	Kasia Howley: Yeah, no, that's a really interesting point.	
P8	Kasia Howley: And kind of going off this, when working with producers, being in a space, performing	
P8	Kasia Howley: working with other musicians. How do you feel like being vocally fatigued is translated in those situations? Do you feel comfortable that if you were vocally fatigued in a session, you would share it?	
P8	Kasia Howley: Or do you feel like it's something that you wouldn't feel comfortable discussing?	
P8	P8: I think I would, I think I'd probably try and shift to studio session if I felt that bad, though. I think that's just me, because I, like, when I go into a session, vocals for me is, like, the most important thing. I'm very	
P8	P8: Specific, they have to sound a certain way, they have to come across how I want.	
P8	P8: I would say like there probably is a stigma.	C232 - Stigma surrounding vocal fatigue in recording scenarios
P8	Kasia Howley: Mmm.	
P8	P8: to... in the room where people don't say that, and they're not necessarily happy with the takes that they've got. And...	
P8	P8: again, when there's, like, sessions that are being paid for, again, that's, like, a massive stress, because you're like, I have to get this taped, it has to be right	C192 - Financial consequences and pressures of vocal fatigue for musicians
P8	P8: And I don't know.	
P8	P8: I think sometimes in the recording space, I think vocalists get left behind.	
P8	P8: Yeah. Because it isn't always about them, it can sometimes be around the producer, or the songwriter, or anyone else, but then they're, like, kind of just a pawn in the space, so you have to kind of learn to fight, and I think because I'm... although my training was difficult in areas, I'm kind of thankful	C233 - "sometimes in the recording space, I think vocalists get left behind."
P8	P8: It kind of made me hyper obsessed with the importance of the voice, you know.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P8	Kasia Howley: Do you feel like there is a level of financial, obligation, pressure when you're booking studio sessions, and as a musician, to feel like vocal fatigue, you can't have it, almost, or you have to...	
P8	P8: Yeah, I mean, I kind of, I kind of touched on it with, like, the show that I was prepping for, and then almost was feeling fatigue coming on,	
P8	P8: It's like not an option, like I, I, I think for me.	
P8	P8: You put these, you put yourself in these high-pressure situations where like.	
P8	P8: You go like, you feel like you're going to the Olympics or something, like everything counts, everything matters, you can't fuck up. And I don't know, it's I think because it's linked to your dreams and your goals in life, like you want to.	
P8	P8: like, I don't know, there's, like, a level of embarrassment, especially for, like, working your way up to working with better and bigger producers. You don't want to be the guy who turns up. I think the first session is definitely always worse	C165 - The need for validation and wanting to impress C91 - Embarrassment around vocal fatigue
P8	P8: You don't want to be like cracking on notes, you don't want to	
P8	P8: Not not singing in a way that you know would make yourself proud in the room so yeah.	
P8	Kasia Howley: Yeah, no, it's a really good point. So I'm going to bring up this guide now. Did you say you've got it in front of you as well?	
P8	P8: Yes, I got it.	
P8	Kasia Howley: Do you want me to bring it up on this screen as well? Or are you good with it where you've got it?	
P8	P8: No I've got it, all good!	
P8	Kasia Howley: So, this was what I created in my last module of the Masters, it, it's based on research and evidence,	
P8	Kasia Howley: Cognitive learning, the way people digest information, but it is still being refined and it's something that I'll continue to refine after. I'd just love to get your thoughts on it, if there's anything you learned from it, if it highlighted anything, if it didn't?	
P8	P8: Yeah, I think for me, the middle section's [steps of identification] probably the best, because I think, like, I spoke about that in length, about how...	
P8	P8: early identification	
P8	P8: Catching it early and I think that is that's the most important step because.	
P8	P8: Although	
P8	P8: I don't know, like, if we can catch it a week or two weeks before the thing that we're trying to have voice for, because there's always... I think with singers, unless you're not... I know not every singer is regularly performing or wanting to be a full-time singer, but we all want to catch things early so that we can continue doing what we love, so for me, like.	
P8	P8: That that you know identify the symptoms and like.	
P8	P8: assessing...	
P8	P8: Kind of how bad it is, which then helps you kind of manage your, manage yourself. I think it's independence, like.	
P8	P8: I don't know if a lot of training Helps you with.	
P8	P8: Independence, it's kind of like, this is this, this is how we do it, this is how we heal	C235 - Guide promotes independent self management and awareness
P8	P8: but it doesn't necessarily teach to go, like, but what is your voice doing? Vocal vocal fatigue is very different to, like, a high soprano or a bass.	
P8	Kasia Howley: Yep.	
P8	P8: Like, a guy at a bass might never really know whether they're, like, losing their voice. Yeah.	
P8	Kasia Howley: Yep.	
P8	Kasia Howley: So the step-by-step thing, is that something that you think would	
P8	Kasia Howley: help people to change their process of identifying and acknowledging?	
P8	P8: Yeah, no, for sure. I also think as well, like, we should be checking in before we've even got vocal, like, even before, before, like, checking in regularly every day and be like, how is my voice today? And I think, like.	
P8	P8: One of the best teachers I had, she always starts the lessons by, like, saying, like, how is your voice? And I think it really makes you think back before singing	
P8	P8: and think oh I don't know and I think that	
P8	P8: That is something we should naturally be doing ourselves and not relying on our teachers and our mentors to do that, like, just checking in every day. And I know, again, I know I'm being like, this is extreme work, but I don't know, I think it's...	C236 - Importance of daily check ins vocally and self monitoring
P8	Kasia Howley: no absolutely!	
P8	P8: it's like we always, we check everything else, like how is my shoulder the day before when it was hurting, how is my	
P8	P8: Like, how is my voice today? Like, it's something I think that we.	
P8	P8: For me as well, like, a lot of people take it as if it's oxygen, like, the voice is just the voice, right?	C236 - Importance of daily check ins vocally and self monitoring
P8	P8: But if cared more around it.	
P8	Kasia Howley: Yeah, so even that five-part checkpoint, that could be a daily thing, really. Because if it's identifying symptoms, that could be even on a morning if, I suppose, even if you're not fatigued, but you're just like, oh, a bit hoarse today,	
P8	Kasia Howley: or feeling a bit tired and then assess the duration	
P8	P8: Mmm.	
P8	Kasia Howley: And the common symptoms, are those things that you have experienced or heard of or anything you've not heard of on there?	
P8	P8: Yeah, I mean, for me, the only one that I've never experienced is the reduced control of the voice, and I think that's because of the training element I put the work in.	
P8	Kasia Howley: Yes.	
P8	P8: if I Ever have reduced power, or if I ever have.	
P8	P8: I don't know, any of the other stuff going on, I kind of go like, okay, this is where I can pivot.	
P8	P8: So I don't lose control.	
P8	Kasia Howley: you feel you've got... and I guess then, if you then flicked onto the next page, and flicked onto where it says, like, future prevention.	
P8	P8: Yeah. Okay.	
P8	Kasia Howley: Is something that actually that is probably what would manage your not having those other symptoms?	
P8	P8: Yeah, yeah, 100%.	
P8	P8: Yeah, I think... I think, like...	
P8	P8: again, this teacher I work with, she always talks about, like, the tiny tweaks, and I think those are the best things to...	
P8	P8: I don't think it's, like, a hardcore work, work, work, work. Sometimes that could be, like, that could be worse for you. Yeah. And, like, it could be, like, you know, like, a little bit less effort in certain areas, and also building up certain areas, and I think just consistency helps more than anything.	
P8	P8: Yeah, I mean...	
P8	P8: Where, whereas I'm going to the gym, I am always thinking about what tension is this gonna cause, and I try and	
P8	P8: I don't know, think about that, whether it's through breathing or stuff like that. I know this is, like, really technical work, so not everyone's thinking of that, but I don't know, I think these are things that need to be more, like, spoke about more.	
P8	Kasia Howley: Anything else new on the second section? So with like the scientific elements?	

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P8	P8: Yeah, maybe the neural stuff, I mean, that's quite, that's quite new because I don't, I don't necessarily know if I ever really think about that, but then I think sometimes like.	
P8	P8: My brain isn't switched on.	
P8	Kasia Howley: Yeah.	
P8	P8: Sometimes my voice does stuff and you kind of get up.	
P8	P8: Where did that come from? And I genuinely think it's because you're, it's like a, it's like a mental fatigue that's.	
P8	Kasia Howley: Do you feel that maybe isn't something you consider that much?	
P8	P8: Yeah, I mean, I just, I kind of thought, like, it was just me fucking up, but then actually, when you're a trained session, when you're a trained musician.	
P8	P8: Of course, you train not to do that. So sometimes when things happen, you're like, oh, actually, maybe there was a loss of focus because I'm just not altogether today or whatever.	C237 - Interest around the different underlying mechanisms, particularly neural/afferent
P8	Kasia Howley: do you feel like people do break fatigue down into those 5?	
P8	P8: I would say I'd say fatigue is all physical to a lot of people. I would say like.	
P8	P8: Yeah, I'd say they go like, oh, my voice	
P8	Kasia Howley: Yes.	
P8	P8: be... I wouldn't necessarily know if they break it down. Even the metabolic, like, even the food stuff you're talking about there, like, I don't think people even break that down	
P8	P8: I...	
P8	P8: I'm quite superstitious, whereas, like, I won't... if I eat, it has to be, like, hours and hours before, because I know that, for me, eating and that process of eating, like, actually affects my voice, and it's just...	C198 - Discussion of vocal myths, herbal teas, honey, salt water
P8	P8: So I have to be very careful with that, but I think sometimes people don't eat enough or eat at all, and.	
P8	P8: I think you just have to treat	
P8	P8: Your voice as, well, it is obviously a muscle, there's muscles and stuff involved in there, but I think you have to.	
P8	P8: you are an athlete in terms of how you prepare, because if I, like I said, if I've got a gig coming up, I do it as if I'm going, I've got a boxing match obviously I'm not	
P8	P8: Going hardcore but I think of like a process that I have to do to achieve that goal.	
P8	Kasia Howley: Absolutely.	
P8	P8: instead of just kind of, like, I need to learn the lyrics and sing and sing and sing every day, it's like, what am I actually doing to make sure I'm really comfortable? So, when it comes to that process, like, some of the best advice	
P8	P8: You do the preparation before. I know it's so obvious because obviously you're doing the preparation before, but I think I used to be.	C210 - Prevention prioritised rather than management
P8	P8: I used to do the preparation on the performance almost because I'm like trying to tweak things.	
P8	Kasia Howley: yes, back to the prevention slash management!	
P8	P8: Yeah, for sure. So like you, so then I don't know, I, I call it like the avatar state now when I'm seeing where	
P8	P8: I don't even know where I am when I'm singing. Like, obviously, technique is there, because I can control it, but in terms of emotions and fear and stress.	
P8	P8: Like I can kind of go like.	
P8	P8: I'm just flowing now.	
P8	P8: And because I've done the work and I've done the practice and I'm on it with the technique and kind of that, I don't really necessarily feel the stresses of that.	
P8	Kasia Howley: And in terms of the guide, do you think it would be beneficial in the professional voice world? Do you think it could work for musicians? Who do you think, like, would benefit from it, if anyone?	
P8	P8: For me, this is the kind of thing that should be up on every classroom. I would find this more beneficial than a picture of vocal folds.	
P8	Kasia Howley: Interesting.	
P8	P8: I don't... I Because I'm like	
P8	P8: I'm... I am a visual learner, but...	
P8	P8: I like people, I know, I like discussions, because I'm, I'	
P8	P8: I think it's because like I'm intellectual as much as I am like physical. So when I like having these kind of conversations and understanding, whereas like a lot of the time when they'd be like, this is the voice, this is the vocal folds, I was like, okay, great, but they're not my vocal folds. So I didn't really like feel the connection. Whereas with this, it's kind of like it's a little bit more relatable. Yeah.	C238 - Applied vocal health information perceived as more valuable than anatomical information alone
P8	Kasia Howley: Yeah, that's really good to know actually, yeah, I never thought of it like that.	
P8	P8: I think it's like this should be.	
P8	P8: Something that is integrated into all singing lessons everywhere in terms of like.	C239 - Guide integrated into individual singing lesson practise
P8	P8: Rather than, like, how is your voice today, and kind of, like, that's kind of it. We can go further and be like.	
P8	P8: what are you doing to manage the goal that you're trying to achieve? Especially for, like, these institutions, like, if we're always working towards something, I feel like it's more focused around the material and the acting and this and this, but it's like, yeah, but you've got two weeks to go, you're doing all of these other classes, you're doing all of these other things, like, how can you	
P8	P8: Make make sure that your voice is gonna be okay in 2 weeks time.	
P8	Kasia Howley: Yeah. And in terms of, like, who you work with in terms of, like, bands, producers, that side of things.	
P8	Kasia Howley: Do you think they would be interested in knowing more about,	
P8	Kasia Howley: it, when working with singers.	
P8	P8: Maybe, maybe bands... producers, maybe, I mean, I don't know how much... there's this... I think it's, like, a small percentage really care about vocalists, so it's hard to tell, like, the producer I work with, he...	
P8	P8: he focuses a lot on vocals and, like, really cares about how they sound, so maybe he'd be interested, but again, it's like an intellect thing as well, like, some people don't like to be in the theory of things, they just kind of like to go, like, straight into, like, I do this, I do that	
P8	P8: And it could be quite closed off, but I think... I think in the band space, I think vocal health is always important, and I think, like, I don't know, if it keeps them booked and blessed and on tour because their singers aren't, like, getting fucked up, then I think, yeah.	C240 - Relevance of guide for those working with singers, such as bands as they benefit from healthy vocalists
P8	Kasia Howley: Yeah. And how do you think the best way to sort of like translate or like deliver this would be, would it be, I mean, we're in a digital world now, but I don't know, is there still a benefit of like hard copy or poster form?	
P8	P8: I think... I think... I think... I know it's kind of, like, not what the goal was for this, but I think translating it into a book would be really beneficial	C241 - request to turn the guide into a book
P8	P8: And I would link it to, like, I'd link	
P8	P8: Obviously, we need to make it more, exciting to an extent for some people, because it might not be.	
P8	P8: Really obsessed and obsessed like I am, but.	
P8	P8: but you could base it on	
P8	P8: someone who's dealt with real severe vocal fatigue, and they've been, like, they've been left out, and I think you'd be able to target an audience better that way, and then you could bring	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P8	P8: Digitally, I think a lot of this work would be Shortened into ads.	
P8	Kasia Howley: Yeah, okay.	
P8	P8: So I would focus on like, do you feel vocal fatigue? And then you could like, some of this, for example, the way that you laid this out almost looks like a quiz in a way. So you could kind of like, they could, they could click on it to be like, yes, I've experienced vocal fatigue, da da da da, yes. And then it could either direct people to singing teachers that care about vocal fatigue or it could direct them to, singing teachers.	C242 - Suggestion for interactive formats, such as quizzes, ads or digital links to helpful aids
P8	P8: Buying tools like the stores or different different guides and things and I think.	
P8	Kasia Howley: so it could be more interactive, maybe even multiple formats? Could I have a poster? Could I have a leaflet? Could I then have some sort of digital experience from it?	
P8	P8: For sure.	
P8	P8: I think as well, like, it reminds me a little bit of the vocal, I don't know if you've ever seen, like, the chakras, a very spiritual thing, but there's, like	
P8	P8: Head chakra and throat chakra and I'll have to send it to you, but the way that you've laid it out almost looks like that kind of setting.	
P8	Kasia Howley: Okay!	
P8	P8: Yeah, yeah, so the chakras, yeah, they're like all these different.	
P8	Kasia Howley: Really interesting, I don't even know what this is!	
P8	P8: Yeah, it looks like [shows poster of chakra's]	
P8	Kasia Howley: Right!	
P8	P8: Power, chakra, throat, heart, sacral, soul, affectives, root, it It's all like	
P8	P8: You can feel it like energy and stuff like that, but I think that there's something linked to vocal in that, in that there's kind of like.	
P8	P8: and Obviously, it's not a spiritual side of it, because it isn't science	
P8	P8: I always talk about, like, mental state.	
P8	P8: Physical state. How is the body? And so they all kind of link into these different things where you're, like, checking in with each department of yourself to go, how does it affect the voice?	
P8	Kasia Howley: So maybe it could even follow a colour transition in that way of, like, that it's, like, how you identify it, then it moves on to, like, a different state, then it moves on to the, the, the why it happened, then it's the management..	
P8	P8: Yes.	
P8	Kasia Howley: Yeah, no, that's really interesting.	
P8	P8: Yeah, I mean, I think it	
P8	P8: It's like a human thing for me like I	
P8	P8: I don't know. I think it's an extension of me. So I don't know.	
P8	Kasia Howley: it's the extension of anyone who's using their voice professionally, really.	
P8	P8: Yeah, I mean, for me, it	
P8	P8: Honestly, I think sometimes you sing for work and you act for work and those two things together are what you do, but actually.	
P8	P8: when I'm singing, there's, like, slight intonations that can affect people's emotions in the room that aren't... I don't necessarily link that to acting. I'll link that to, like, voice. Like, I think there's acting through song, and then there's actual voice acting, where, like, you can do little, like.	
P8	P8: Little things that you know that's going to hit someone hard the way that you've sung that.	
P8	Kasia Howley: Yes.	
P8	P8: And it's not necessarily even about the words, it's just about the vocal quality in the space at the.	
P8	Kasia Howley: Yeah, sure.	
P8	Kasia Howley: Anything else you want to add about it or share about it or?	
P8	P8: I think, I think we've got it, I think, I	
P8	P8: Yeah, I mean, it's just,	
P8	P8: Getting this information to people as quick as possible at the start of their career	
P8	P8: I think that's the goal. That should be the key audience.	
P8	Kasia Howley: Yes.	
P8	P8: And So that they remember to do it afterwards, because I think all I kind of learned from	
P8	P8: drama school was	
P8	P8: Drink lots of water, hydrate, steam, and kind of do a vocal fry. Those are the things that I remember.	C243 - Training isn't individualised and strategies are generic
P8	P8: I think it was so fast paced.	
P8	P8: But imagine being in a space where it was encouraged to have vocal rest?	
P8	Kasia Howley: Yes.	
P8	P8: Like, yeah.	
P8	P8: Like, you could, you could, obviously these teachers aren't going to become doctors.	
P8	P8: but they could kind of go like, oh, it sounds a little bit like this. Maybe try this method. Oh, it sounds a little bit like this. It's like, why is that different to technique?	
P8	P8: If we're using a certain technique to achieve a certain note, surely there's technique behind vocal fatigue like this,	
P8	P8: Prevention that would help you individually.	
P8	Kasia Howley: And I'd also want it to, I don't know if you feel like it would, but I also want it to alleviate worry	
P8	P8: 100%. I mean, yeah.	
P8	P8: for sure, and I think.	
P8	P8: It's a, the voice is like a full-on roller coaster as well, like, it's one, one day, even if you're not ill or anything, you might just feel a.	
P8	Kasia Howley: And knowledge is power.	
P8	P8: Oh, no, for sure. But I just think this is... this is... this has always been, like, the side product of something. It's never been	
P8	P8: Up there with the main characters and I just think it.	
P8	P8: For me, it's... it should be, because this... this...	
P8	P8: If this isn't done correctly, you're more likely to fuck up performance than you are.	
P8	P8: Like vibes. I think people just go off vibes and then I just hear certain voices and they're like, when was the last time you actually had a rest of that?	
P8	Kasia Howley: Well, thank you so much. I'll press stop on record now!	

P9-MTP - Interview Coding

P9 - Interview

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
Musical Theatre Performer - Interview - P9	Kasia Howley: So, the interview will follow a semi-structured format, so I've got questions and prompts, but can go off-piece, and it can go wherever it feels natural. So to start, could you just	
P9	Kasia Howley: Explain what you do for a job and how you use your voice professionally?	
P9	P9: Definitely. So I am an actor and a musician and I use my voice a lot.	
P9	P9: pretty much when I'm working every day professionally, be that speaking on stage or recording my voice for video games or singing on stage or singing in studio.	C4 - Demanding daily schedule
P9	P9: Yeah.	
P9	P9: Speaking or singing, or making sound.	
P9	Kasia Howley: And within what you do professionally, what would the term vocal fatigue mean to you?	
P9	P9: I think it means when I, it's something that's, like.	
P9	P9: around a lot, I'd say. Like, also in, in, especially when I'm doing stage work, because...	C123 - Vocal fatigue is a big part of performing
P9	P9: you are doing so many shows a week, so, like, I feel like some type of vocal fatigue is happening to me	
P9	P9: on a weekly basis.	
P9	P9: And it's something I'm managing, daily. Like, or either with preemptive work, or if it hits me with the type of work I put in to be able to, like, do my job and get.	
P9	Kasia Howley: Mmm.	
P9	P9: My stay as healthy as I can vocally, if that makes sense. But vocal fatigue is always kind of.	C270 - "Vocal fatigue is always present somehow"
P9	P9: Present somehow, I'd say.	
P9	Kasia Howley: And you've kind of answered but going on from that, what would you notice in yourself if you were feeling vocally fatigued? Are there any particular signs? And that could be...	
P9	Kasia Howley: Physically, emotionally...	
P9	P9: Mhm.	
P9	P9: I think, usually it would start, like, physically, like, I would start to feel that my voice maybe is behaving a way that I feel like I don't have the same full control of the voice that I would have if it's not fatigued. Sometimes...	C119 - Lack of vocal control
P9	P9: I think it's way more...	
P9	P9: more of a feeling in that, like, maybe my vocal folds feel a bit swollen, or maybe I lose a bit of my range, or maybe it's taking a longer time to warm up, to get to a place where I feel like I do have that control. I think very seldom I... I think I've never actually...	C16 - Reduced vocal flexibility
P9	P9: Experienced pain or anything like that.	
P9	P9: And I've never had a vocal injury, but I can definitely hear that my voice maybe is sounding a bit husky or a bit airy.	C155 - Audible signs of vocal fatigue
P9	P9: And maybe it feels like I have to use a bit more effort to produce a sound that in a normal setting would be easy to produce.	C120 - Increase in effort required to produce sound
P9	Kasia Howley: Yeah. And is there a particular time you can reflect on where this has happened, and how did it affect you in a rehearsal process, or if it was a show?	
P9	P9: Yeah, sure.	
P9	P9: Yeah, well, I,	
P9	P9: I think the last time it affected me where I felt shame for it would be when I did the musical [x] in the West End.	C272 - Shame around vocal fatigue
P9	P9: And I was covering [lead role], but I was also covering...	
P9	P9: all the five different [ensemble] tracks in the show, which was quite challenging vocally, because it meant I was singing from bass to soprano lines, and also [the lead] is quite a hard sing. And,	C41 - Pressure of being a swing
P9	P9: I went on, and I had a bit of a... I already had a...	
P9	P9: a bit of a chest infection happening, so I was a little bit coughy, but not to the point where I couldn't do the show. But I... I sang one of the numbers, a bit... I went a bit too far in one number, and then... so in the next one, I had... I cracked, like, 3 times.	C91 - Embarrassment around vocal fatigue
P9	Kasia Howley: Mmh.	
P9	P9: On stage, and I, and I remember that being, like.	
P9	P9: obviously a moment of, like, you don't want to do that to a paying audience, or... well, I felt, you know, it was tough to get through that show.	C91 - Embarrassment around vocal fatigue
P9	Kasia Howley: Yes.	
P9	P9: And then you... yeah, it left... it can leave you...	
P9	P9: frustrated, or, like, worried sometimes that something maybe is wrong with your voice, and, like, I've had that many times before, but, what I've learned throughout the years is, like.	C20 - Fear of voice not functioning
P9	P9: it's... it's gonna be... have to be something quite exceptional if it's actually an injury. Like, vocal fatigue can go quite far without it being dangerous, as long as you can...	C273 - Fear of vocal injury
P9	P9: Manage it, or as long as you also put in the recovery work.	
P9	Kasia Howley: Yeah, and you've mentioned something interesting there, do you think that we are feeling vocally fatigued?	
P9	Kasia Howley: Can you acknowledge before it's going to happen or do you feel like, like you said during the show, is it something that.	
P9	P9: Mmm.	
P9	Kasia Howley: During the show, it becomes apparent?	
P9	P9: I think when it comes to just feeling a little bit under maybe it's something I can feel depending on the job like right now I'm doing a play.	
P9	P9: So it's a bit more, even if.	
P9	P9: if I were to have, like, a cold or something, or I would be affected by that, like, I could probably do it with my lines, but, like, when it's singing, you know, I would be up...	
P9	P9: Early in the morning and, like, hydrate and steam and nebulize and then, and then.	
P9	P9: throughout the day, slowly warm the voice up to see where I'm at that day.	C2 - Self developed warm up
P9	Kasia Howley: Mmm.	
P9	P9: And I think most times if I felt that like it's to a point where I can't do my job, I call it off before I even try to go on.	
P9	Kasia Howley: Yes.	
P9	Kasia Howley: And do you feel quite comfortable to do that?	
P9	P9: Yeah, it's something over the years that I've learned to feel comfortable with. I think in the beginning, like in drama school and in my early career, no. But now, like eight, nine years in, I'm like, I know my voice really well, I think, and I know my body and I'm not...	C64 - Generational differences C158 - Older/more experienced performers are better at advocating for themselves
P9	P9: I think, from experience of having pushed through where I shouldn't have before.	C183 - Prevention prioritised after a problem has occurred
P9	P9: I don't do that again, so I'd rather call off sick, you know.	
P9	Kasia Howley: And do you think that is because you've learned over experiences?	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P9	P9: Yeah, definitely, definitely, like, from experience of, like, trying to communicate that, I'm not well enough for, like, I have... I actually... and that time, it was not even about vocal fatigue, it was... oh, well, it was, it affected me, but it was because I had... I was unwell, like, I had a chest infection.	C183 - Prevention prioritised after a problem has occurred
P9	P9: So from... from the coughing, my voice was, of course, altered, and my... my vocal folds were swollen. And I was trying to say that I... I can't go on, and they were like.	274 - Lack of understanding around vocal fatigue from company members
P9	P9: you have to... you seem... it seems like you are well enough, kind of thing. And, I did, and then I had to go off mid-show.	274 - Lack of understanding around vocal fatigue from company members
P9	Kasia Howley: Right, And then, you've kind of touched on it a little bit, but what do you think can cause vocal fatigue?	
P9	Kasia Howley: That could be to do with your performance.	
P9	Kasia Howley: Or anything else in your life	
P9	P9: I think for me, like, obviously 8 shows a week is quite tough, but...	C1 - Demanding schedule
P9	Kasia Howley: Yeah.	
P9	P9: It's not really the shows itself for me, it's my choices outside of the show a lot of the time as well. Personally.	
P9	P9: I think what's also a big part of our industry is, like, loud environments after work.	C24 - Recreational voice use
P9	P9: And that's my...	
P9	P9: That's the thief for me. Like if I'm doing a high intense role, like I've played [lead] in [vocally demanding musical] and [lead] in [west end musical] and when I do those shows I have to...	
P9	Kasia Howley: Two of the most intense roles that you can play!	
P9	P9: Yeah, and... and they were intense, but it... but my lifestyle changed when I did them, because I had to kind of, like, after work, go on... on vocal rest and go home, and, like, and... and hydrate and steam and... and do recovery time. And if I... if I had friends or family watching the show, and maybe I went	C275 - Lifestyle changes to manage theatre demand and vocal fatigue
P9	P9: to a pub after and it's not even really about drinking I think, but being in a loud environment and talking to people after the show.	
P9	P9: I would then feel a massive change the next day, you know, like...	C23 - Guilt around non-work activities
P9	Kasia Howley: And that was a way you managed vocal fatigue?	
P9	P9: Oh yeah, definitely, like, the choice to not put myself in loud environments,	
P9	Kasia Howley: How did that effect your lifestyle?	
P9	P9: Then it just I think it means that I feel a bit more restricted when I do these those type of jobs like	
P9	P9: I think, for me, I'm okay with it, because I know it's,	
P9	P9: project-based, it's not forever, it's for, like, a couple of months or a couple of weeks, but it does definitely change how I choose to live. I probably would... I probably would spend more time... I probably would have more social time	C275 - Lifestyle changes to manage theatre demand and vocal fatigue
P9	P9: if I didn't take that job, you know? Like, now when I'm doing a play, for example, I'm being... I'm allowing myself way more	
P9	Kasia Howley: Yeah. Okay.	
P9	P9: Of that. But I know I'm going into something singing soon, so I'm also slowly changing my habits. Again, you know.	C33 - Different demands of material
P9	Kasia Howley: Yeah. And you've kind of answered it, but are there any other strategies that you think work for you or any strategies you know about, but maybe don't know as much about, just the way they work in general for management?	
P9	P9: To kind of manage the vocal fatigue, do you mean?	
P9	Kasia Howley: Yeah, yeah	
P9	P9: Yeah, so for me personally, I try to drink like a lot of water, like three liters, four liters a day. And then I do straw work.	C86 - Hydration as strategy
P9	P9: Both, like, straws just in the air, but also straws in water. And then also, like, doing fine, kind of, siren closure work.	C222 - Straw/SOVT work to manage the voice
P9	Kasia Howley: Mmh.	
P9	P9: And... and vocal rest, like, not overdo it, and I nebulise, and I steam daily as well.	C104 - Vocal rest C47 - Vocal steaming C49 - Nebulising
P9	Kasia Howley: So a bit of everything.	
P9	P9: Yeah, I'm kind of doing a bit of it all.	C276 - Using all possible remedies daily for maintenance
P9	Kasia Howley: And what do you feel like out of those you feel the most benefit from?	
P9	P9: I think, you know.	
P9	P9: I think if... I do it all the time for maintenance, but if I end up	
P9	P9: feeling like oh now I feel a bit the fatigue is kind of hitting in. I think if it's muscular, if it's because like I've overdone something muscular like vocal massage is really good to free up and if it's more about my closure and my vocal folds then	C277 - Vocal massage to aid muscular tension
P9	P9: Steaming in the morning, but throughout the day, I up the nebulizing a lot.	
P9	Kasia Howley: And how do you feel that benefits your voice?	
P9	P9: I feel like the nebulizing really helps to rehydrate, especially when I'm...	
P9	P9: when I'm a bit swollen, or when I'm more dry than usual. I think the...	
P9	P9: the nebulizing feels like it's like a... it's a bit of a quick fix, but it, helped me to get through that day, like, with the extra moisture and hydration that brings.	C50 - Nebuliser for immediate singing
P9	Kasia Howley: And kind of going on from what you said, which is really interesting, do you feel like you have a difference between preventative strategies	
P9	Kasia Howley: And symptom relief strategies?	
P9	P9: Yeah, yeah, actually, I think my preventative strategies is more to do with good sleep, good rest, hot steam in the morning and in the evening.	C278 - Important of good sleep for prevention
P9	P9: And hydration, and, when shit hit the fan, nebulizing, nebulizing and more bubble work, I think, and straw work.	C279 - Not a clear definition between strategies for prevention and immediate relief
P9	Kasia Howley: Okay, and why do you feel like there's a difference in between those?	
P9	P9: That's a good question. I feel like... I think sometimes, if I'm feeling like I'm actually in really good shape, I'm trying to...	
P9	P9: Because it takes a lot of time in the day, as well, to do. So I think,	
P9	P9: If I'm in fairly good shape.	
P9	P9: And it's fine. I kind of,	
P9	P9: don't feel the need to do as much nebulizing or extra hydration on top of, like, the water intake, and I usually warm up.	
P9	P9: But then if things are bad, then I spend even more time to kind of try to boost my current states of being and to be able to get through something. Like for example, if I did a play, sometimes now when I do the play, I shout a lot in the play.	
P9	Kasia Howley: Yep.	
P9	P9: And on a two-show day, I will nebulize in between shows, and maybe in the interval. But on a one-show day, I don't really feel the need to.	
P9	Kasia Howley: Okay, that's really good to know. And you've kind of already, touched on this as well,	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P9	Kasia Howley: but how comfortable you feel now discussing vocal fatigue with those you're working with?	
P9	Kasia Howley: And something I'd like to ask,	
P9	Kasia Howley: Now you feel comfortable in your career. Back when you were younger and starting out, would you have felt like you wouldn't have said something?	
P9	P9: Yeah, I probably would have tried to come to maybe...	
P9	Kasia Howley: Mhmhm.	
P9	P9: some kind of mentor figure first, or like...	
P9	Kasia Howley: Okay.	
P9	P9: Don't want to... I think it has to do with knowledge as well, like, I feel like,	
P9	Kasia Howley: Yeah, that's kind of the question was like, what would, what do you think would have helped you, young you back then.	
P9	P9: Yeah, more, more education on not only vocal technique, but how to manage vocal fatigue. And like...	C81 - Importance of vocal fatigue education within training
P9	P9: I feel like throughout my career, I've kept learning about voice, and I've kept finding new sources, like new teachers and mentors, and I found some great ones.	
P9	Kasia Howley: Yeah, thanks.	
P9	P9: But I think it's through the education and through learning that I feel the confidence in	
P9	P9: both vocabulary, but also, like, knowing my voice, and without... if I didn't have that education, and I still... and I felt these things, like, I just wouldn't know.	
P9	Kasia Howley: Yes.	
P9	P9: what to do. So I think it's to do both with experience but also a lot with education.	
P9	Kasia Howley: No, that's brilliant. And then, for the last, 5 minutes, obviously I sent you the guide.	
P9	P9: Oh, I have, I have the guide	
P9	Kasia Howley: Oh, you got it there. Oh, perfect.	
P9	P9: Yep.	
P9	Kasia Howley: This is something that I created, through a research project in my last module, based on all the current research	
P9	Kasia Howley: out there about vocal fatigue. It's still very much being refined, but I just would love your initial thoughts?	
P9	Kasia Howley: It confirmed or highlighted anything new?	
P9	P9: I think it's so, so clear, and like.	C72 - Clear and accessible design
P9	P9: Looks super good, and when I read... I'm on page 1 now.	
P9	P9: Or they're like one, two, three steps on the first page.	
P9	Kasia Howley: Yes.	
P9	P9: And I think it's a... I think, for me, you're like...	
P9	P9: encounter it a lot. I was like, it was very, kind of, just affirmed me. I was like, oh yeah, this is literally the steps that I, that happens in my experience.	
P9	P9: And the type of symptoms I, I would feel and the, and the type.	C74 -Relatability of the symptoms
P9	P9: And I really like the,	
P9	P9: Order of events of, like, identify, access, evaluate, consider, implement, you know?	C73 - Logical structure of progression (Guide)
P9	Kasia Howley: Oh, good.	
P9	P9: That feels like a very good order of things to do. And then.	
P9	P9: I thought it was really interesting.	
P9	P9: Also to think about why does it happen, like, think about...	
P9	P9: why am I experiencing this, or is it something I can change before that to not experience it?	C280 - Praise for the questioning nature of the guide, to provoke thought
P9	P9: And then... I didn't know at all about the scientific moment bit. That was really interesting, I thought.	C76 - New and thought provoking information
P9	P9: I think, I think that's really, really interesting. Obviously.	
P9	P9: For some people, like.	
P9	P9: It will just be you used it or whatever, but then there are other things that could affect them	
P9	P9: which is even more, kind of, niche, and I thought that was really, really interesting.	
P9	P9: Because I'm a nerd.	
P9	Kasia Howley: And do you feel like it could be beneficial in practice? And if so, where do you feel like it could maybe fit in the industry, in the professional voice field?	
P9	P9: I think, like,	
P9	P9: I think those things would also be good for people who work in, like, voice care to know about, because I think...	C281 -Beneficial within a voice care setting
P9	P9: the... I feel like in the industry, the usual go-tos are, vocal massagers, or... or, vocal coaches, who help, or maybe speech therapy, if it's... if it's gone really bad, and you maybe have had surgery or something. But,	
P9	P9: But there will be individuals who who also experience those symptoms that are not actually to do with that, it's about to do with other things, so I think.	
P9	P9: If you work in voice care, or if you're mentoring or coaching someone who's, I think it would be good to rule out those things as well, or like, you know.	
P9	Kasia Howley: And the guide as a whole, where could you see it maybe being used in the field?	
P9	P9: The guide, the guide would be so great to have.	
P9	P9: For people who, I mean of course anyone, because everyone's got a voice, but like especially people who work with their voice.	
P9	P9: Of, like, you know, be that as a performer or be that as a, someone who speaks a lot or like, is, is doing speeches, like.	
P9	Kasia Howley: Yeah.	
P9	P9: Maybe we're like, we're teachers, or... Any...	
P9	P9: any industry where voice is a big part of that industry, I think, having this information would be so helpful.	C282 - Beneficial for anyone working with voices or using their voice
P9	Kasia Howley: Amazing. And then last question on it is just, is there anything you would change on it, this could be format, it could be presentation, it could be content, literally anything, any improvements?	
P9	P9: Hmm.	
P9	P9: I think it's pretty... I think it's pretty neat, to be honest.	
P9	Kasia Howley: Thank you.	
P9	P9: So I don't really have, much!	
P9	Kasia Howley: Would you like it in this form or like visually do you think things are better in a handheld form?	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P9	P9: I mean, it would be, for example, if it was something that could be printed and put up in rehearsal rooms or whatever, or in a dressing room or something like that.	C82 - Workplace distribution of fatigue resources
P9	P9: That would be great, I think, to not only have it digital.	
P9	Kasia Howley: Yeah, for sure.	
P9	P9: I think it's looking really good. I think it's looking better than some of the like [vocal method] things we looked at back in the day!	
P9	Kasia Howley: Well, thank you!	
P9	P9: So this feels more like digestible for me.	C75 Accessible explanation of clinical terminology
P9	Kasia Howley: Oh, amazing.	
P9	Kasia Howley: Well, thank you so much. I'll press stop on this recording!	
P9	P9: Of course, of course, of course.	

P20-M - Interview Coding

P20 Interview

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
Musician - Interview - P20	Kasia Howley: So if we could start with you telling me a little bit about, how you use your voice professionally, in what capacity, that'd be great!	
P20	P20: I work full time in a normal job, but on a weekend, I say weekend, I do some midweek as well. I'm a singer in a duo, a rock duo, but I also do solos, which are more towards, I start from...	C9 - Multiple professional roles
P20	P20: The swing, sort of... Buble, Sinatra, going up to Modern Pop with Teddy Swims and stuff, so I'm giggling	
P20	P20: 3, 4 times a week.	
P20	Kasia Howley: Wow.	
P20	P20: Combined. So, yeah.	
P20	Kasia Howley: And what's your day job if you don't mind me asking?	
P20	P20: I'm engineering support for oil rigs.	
P20	Kasia Howley: Wow, okay!	
P20	P20: I used to work offshore, and it's only since I came, and I work from home, that I've started gigging regularly.	
P20	Kasia Howley: Yeah, and do you use your voice throughout the day a lot when you're working?	
P20	P20: Well, I'm always on Teams calls.	C4 - Demanding daily schedule
P20	Kasia Howley: Yeah, so yeah, so quite a bit, yeah.	
P20	Kasia Howley: Okay, that's really good to know. So, in terms of vocal fatigue, what does it mean to you?	
P20	P20: Yes.	
P20	P20: The, the...	
P20	P20: It's generally, I can feel it when I'm singing, that I'm either straining for higher notes, or I'm having to take breaths when I normally don't.	C16 - Reduced vocal flexibility
P20	P20: And a couple of weeks ago, I turned up at the gig.	
P20	P20: set up	
P20	P20: Started singing and couldn't hit a note so I ended up after 3 songs I gave up and went home which I've never done before and I've been doing this for what over 3 years solidly so.	C262 - Forfeiting gigs due to vocal fatigue
P20	Kasia Howley: Yes.	
P20	P20: So that's the first time I've ever had to. So that sort of came in around the same sort of time as your questionnaire. So I thought, actually, that's quite a...	C263 - Questionnaire provoked interest around improving knowledge surrounding vocal fatigue
P20	Kasia Howley: Yeah, interesting!	
P20	P20: Good one to come in.	
P20	Kasia Howley: And you've kind of answered it, but what, what do you recognise when experiencing vocal fatigue yourself? Are there any symptoms, behaviour, physicality?	
P20	P20: I do have the...	
P20	P20: The following morning... obviously, during performance, I can normally tell when I'm straining for notes that I can normally hit without a problem.	C120 - Increase of vocal effort to produce sound
P20	Kasia Howley: Yes.	
P20	P20: The following day, it's usually, I'm going to say, a sore throat. It's more of a tightness.	C89 - Sensation of tightness around tongue and laryngeal region
P20	Kasia Howley: Yep.	
P20	P20: Than a actual, not like a a throat infection, sore throat, it's just.	C194 - Sore throat OR vocal fatigue
P20	P20: Yeah, and I, and again, I try to then vocal rest, which is, again, depending on what's happening, one if I'm	C104 - Vocal Rest C264 - Vocal rest hard to accommodate alongside commitments
P20	Kasia Howley: Yeah.	
P20	P20: Working... or two, whether we've got the grandkids, it's difficult to not... Not talk, but	
P20	Kasia Howley: Talk to them, yeah of course!	
P20	P20: I do, I've recently, I say in the last few months, I bought a nebulizer.	
P20	Kasia Howley: Okay.	
P20	P20: So I use that. I've had a steamer for a while, and I do use that, but I've stopped using the steamer, and I more nebulize now.	
P20	Kasia Howley: Okay.	
P20	P20: And I alternate between a... a 0.5% saline solution, and I've got a 6% hyper...	C49 - Nebulising
P20	P20: Yeah. Saline solution.	
P20	P20: Because I'm asthmatic as well, which doesn't help matters. So the 6%, because you're introducing	
P20	P20: A salt environment, it actually wicks the... Moisture.	
P20	Kasia Howley: Mmm.	
P20	P20: Which helps to loosen the secretions, so...	
P20	P20: As well.	
P20	Kasia Howley: So, in terms of strategies and the way you manage vocal fatigue, how would you say those specific strategies, target your voice? Like, what do they specifically help with, and when would you use them?	
P20	P20: Yeah, the normal saline I use	
P20	P20: Very much prior to leaving for a gig to try and increase hydration.	
P20	Kasia Howley: Yep.	
P20	P20: of the vocal cords where the hypertonic one I generally tend to use in the morning or earlier in the day to try and loosen the secretions.	C49 - Nebulising
P20	Kasia Howley: Yep.	
P20	P20: But again.	
P20	P20: I'm using that between gigging days as well as on gigging days. So even when I'm not gigging, I will use it occasionally. I don't use it every day, just maybe 2 or 3 times during the week and then on gig days I will nebulise as well.	C49 - Nebulising
P20	Kasia Howley: Yes.	
P20	Kasia Howley: And in terms of, you kind of touched on it with the experience you had recently, but...	
P20	Kasia Howley: If you go into that one in more depth or any other experiences where you have been, in a performance setting or rehearsal setting, I suppose, and you've experienced vocal fatigue, how did that affect you in the space, I suppose, emotionally or vocally?	
P20	P20: Like...	
P20	P20: I've never really come across it in rehearsals. It's a really... I'm in a really odd situation with this duo, I mean, because we learn the parts separately.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P20	Kasia Howley: Wow.	
P20	P20: And then we basically, there's one venue we play quite regularly and if we've got new material, we play it there.	
P20	Kasia Howley: Wow.	
P20	P20: That's how we rehearse now, because I work full-time, the other member works full-time as well.	
P20	Kasia Howley: Yeah, I.	
P20	P20: And we're gigging... we're gigging 2 or 3 times a week.	
P20	Kasia Howley: Yep.	
P20	P20: So, to fit in a rehearsal in between, as well, is quite difficult.	
P20	Kasia Howley: Yeah.	
P20	P20: So we now learn things separately. So for the solo ones, obviously, I...	
P20	Kasia Howley: Yep.	
P20	P20: While I'm not on Teams calls, I'll be doing emails, singing along to some backing track.	
P20	Kasia Howley: Yeah.	
P20	Kasia Howley: So I suppose it's more in the performance setting	
P20	P20: Performance setting for me.	
P20	P20: But.	
P20	P20: Again, in the duo setting, because it's rock music.	
P20	Kasia Howley: Yep.	
P20	P20: It doesn't...	
P20	P20: I'm gonna say it doesn't affect as much, because I can pull notes, I can change, I can drop.	C38 - Adapting vocally when tired
P20	Kasia Howley: Yep.	
P20	P20: the pitch on a note, and nobody really cares. Honestly, they don't. I... all... everybody...	C39 - Stylistic vocal demands
P20	P20: strives for perfect performance, but the people in the space... I play pubs, basically, it's pubs and wine bars, but it's not really large venues, so people don't really care. Your background music...	
P20	P20: And I appreciate it. So, but the solo, the times it is bad, I suppose the feelings I get is embarrassment because you know I can perform to a certain level.	
P20	Kasia Howley: Yeah, sure.	
P20	P20: I'm never gonna play Wembley You know, I mean, I'm, I.	
P20	Kasia Howley: You never know!	
P20	P20: age-wise. No, I'm well past that age-wise, anyway.	
P20	P20: So, it's embarrassment, because I know I can do it in a... and luckily, if it's in venues where I'm... I'm known.	C91 - Embarrassment around vocal fatigue
P20	Kasia Howley: Yep.	
P20	P20: I'm not as embarrassed for the staff, but in places where it's a new venue.	C165 - The need for validation and wanting to impress
P20	P20: You want to perform for your optimum level, you know, it's...	C130 - Pressure of maintaining consistent vocal standards
P20	P20: So they re book you really?	
P20	Kasia Howley: Of course, yeah.	
P20	P20: Yeah, so it's... yeah.	
P20	P20: Loss of credibility and embarrassment.	C130 - Pressure of maintaining consistent vocal standards
P20	Kasia Howley: Yeah, credibility is a good point, actually.	
P20	Kasia Howley: And in terms of what you think contributes to vocal fatigue for you, what would you say can be the factors that potentially cause it?	
P20	P20: singing too much and and when I get a a good crowd I'll belt I I'm I'm my vocal style is quite	
P20	P20: It's different on the solos, but even the solo stuff I do, if you think... I try and do teddy swims, and...	
P20	Kasia Howley: Yeah.	
P20	P20: It's all belting. I just belt everything. I can sing softly, but for high notes, I've got to get it. It's high volume stuff.	C32 - Too much vocal effort
P20	Kasia Howley: Yeah	
P20	P20: If I've got a crowd that are enjoying it, I tend to give it more than I should.	
P20	Kasia Howley: Yep.	
P20	P20: I don't pull notes, I don't	
P20	P20: restrain myself. If they're enjoying it, I'm enjoying it, and if I'm enjoying it.	C32 - Too much vocal effort
P20	Kasia Howley: Yeah.	
P20	P20: So that's when I feel it the next day more.	
P20	Kasia Howley: Yeah, and we've kind of touched on this a little, but we'll go back into it. With the strategies that people use to manage vocal fatigue.	
P20	Kasia Howley: are you aware which ones are used to sort of help vocal fatigue in the moment, so let's say, symptom relief, and which ones are used to prevent it? Do you make the difference between those?	
P20	P20: The prevention is warm up.	
P20	P20: Again, it's... it's rehearsal, it's practice.	
P20	Kasia Howley: Yeah.	
P20	P20: It's a muscle the same as everything. If I don't use it, you know...	C188 - Comparison of vocal fatigue to muscular fatigue/fitness
P20	Kasia Howley: Yeah, for sure.	
P20	P20: I'll end up soft and squidgy in my voice as well as my body!	
P20	P20: I don't want it to happen to both!	
P20	P20: But it's, yeah, again, hydration, I know I should, I know I don't drink enough.	C86 - Hydration as strategy
P20	P20: And that's generally in life, let alone just for singing.	
P20	Kasia Howley: Mmm.	
P20	P20: I know that,	
P20	P20: Again, yeah, it's a warm... I've started looking into, like, straw work recently, but again, that's literally in the last few weeks. Again, since this came up, I've started to look into it more. I tried to have a few...	C222 - Straw/SOVT work to manage the voice
P20	P20: I've obviously been singing for years. I'm an older gentleman, but I.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P20	P20: Last year, or was it the year before, I actually had took a course of five or six singing lessons with a professional, just more for warm up work rather than for.	C202 - Singing lessons as an aid for vocal maintenance
P20	P20: I'm not gonna increase my...	
P20	P20: I don't... I don't expect to increase my range at my age, particularly as long as I can maintain what I do have, but it was for... for warm-up strategies, and we recorded some stuff, which I now do listen to, and maybe...	
P20	P20: Try and do some warm-ups, but I, again, I don't do it all.	
P20	Kasia Howley: Yeah.	
P20	P20: If the radio's out of the car on the way to a gig, I'll try and sing along a little bit, but without belting, just to try and warm it up slightly.	
P20	Kasia Howley: So if you ever felt like your voice was tired do you feel that you prioritise relief over prevention?	
P20	P20: Yeah, definitely	C60 - Reactive management of vocal fatigue over prevention
P20	P20: Yeah, I have vocal zones on...	
P20	P20: on pre-order on Amazon, so I do constantly, if I feel...	
P20	P20: Or if I know I'm going to be singing, I'll take a vocal zone.	C265 - Reliance on commercial remedies
P20	Kasia Howley: Yes.	
P20	P20: Took on one of them for a little while.	
P20	Kasia Howley: Yep.	
P20	P20: Again, I have strepsils around the place, but again, it's...	C265 - Reliance on commercial remedies
P20	P20: It's, it's the hydration. The one that's helped me the most is the nebulizer. I would say.	C49 - Nebulising
P20	Kasia Howley: I was going to go back on to vocalzones and strepsils you mentioned. Why do you use those? What do you feel are the benefits? What do you feel like they target for you?	
P20	P20: The vocal zones, I do feel if I'm... if I'm feeling...	
P20	P20: Particularly throughout while I'm singing, the vocal zones do help. The strep zones I just have in cos of most people have them in the cupboard, don't they?	C265 - Reliance on commercial remedies
P20	P20: But,	
P20	Kasia Howley: Yep.	
P20	P20: But just reading the active ingredients and what they do, they're both different. They attack it in different ways, so yeah. So one's more of a, yeah.	C265 - Reliance on commercial remedies
P20	P20: Yeah, the strepsils target more like a bacterial thing where the vocal zones try to.	
P20	P20: Is it a little more...	
P20	Kasia Howley: And we've kind of, touched on it a little, but, in terms of situations when you're singing at a gig, let's say somewhere that you don't know, I'm trying to also learn about who you may collaborate with. So some people collaborate with musical directors, some with producers, but a lot of the people I'm speaking to collaborate	
P20	Kasia Howley: with the people that book you, I suppose! Or your duo partner!	
P20	Kasia Howley: If you are ever feeling vocally under, how do you feel approaching someone to tell them that?	
P20	P20: Again, if it's a new venue, I generally don't.	
P20	Kasia Howley: Yeah, yeah.	
P20	P20: I'll just try and do the best I can.	
P20	Kasia Howley: Yep.	
P20	P20: If, as I say, it was, like, this one I had the other week, luckily it was a venue I'd done two or three times previously, and the bar staff knew me, the manager who was on knew me.	
P20	P20: But there just happened to be the... the lady who does the booking turned up that evening.	
P20	P20: And I'd met... she'd never seen me perform before.	
P20	Kasia Howley: Yes.	
P20	P20: So again, before I started, I said, look, don't expect too much. I've got a bit of a sore throat and I was coughing quite a bit at the time.	
P20	Kasia Howley: Yes.	
P20	P20: And even then, as I say, I did three songs and packed up and went home because I was embarrassed to continue.	C91 - Embarrassment around vocal fatigue
P20	Kasia Howley: Yes.	
P20	P20: And I knew I'd do myself damage, let alone...	
P20	P20: And luckily it was a really quiet night so it wasn't too much of a problem and again I emailed her the following day and apologized and she said oh look just look after yourself we know how good you are just so she'd obviously heard from the other people I was okay so.	C130 - Pressure of maintaining consistent vocal standards
P20	Kasia Howley: Which then gives you a bit of comfort, I imagine.	
P20	P20: It does, it does. As I say, I'm still...	
P20	P20: Again, even at my age, I'm still nervous going into a new venue that I've never played before, you know.	C130 - Pressure of maintaining consistent vocal standards
P20	Kasia Howley: Yep.	
P20	Kasia Howley: Most...	
P20	P20: More so with the solo than the... than with the duo.	
P20	P20: Well, I know.	
P20	P20: I know what we do is...	
P20	Kasia Howley: Yes.	
P20	P20: I'm gonna say... Good in a relative sense. I think we're okay at what we do. Yeah.	
P20	Kasia Howley: Okay.	
P20	P20: for a while and I know even if my voice is suffering a little, I can get through it.	C22 - Pushing through vocal difficulties
P20	Kasia Howley: Yeah. You.	
P20	P20: I mean, but it's the solos, there's nowhere to hide	
P20	Kasia Howley: For sure. Moving on from this now, you'll see that I sent you, a guide	
P20	P20: Yes,	
P20	Kasia Howley: So this is something that I created in my previous module. And it's something that I've been researching for the last couple of years with this course, so that has gone into the creation of it. It's based on evidence, and research that's out there and also how people learn and	
P20	Kasia Howley: process information, it was created with all that in mind too. But it's still very much being refined. So I can bring it up on the screen too?	
P20	P20: Yeah, I do have it. I, as I say, I looked at it just before I came into this meeting.	
P20	Kasia Howley: I can bring it up on here too, that's what I've been doing, just so everyone can have it here, because I know everyone's got incredibly busy lives	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P20	P20: I've got it!	
P20	Kasia Howley: Oh, perfect.	
P20	Kasia Howley: Then I'll just turn my camera off for a few minutes so you can have another little re-look, then I'll bring it back on, just so we can have a chat!	
P20	P20: Yep.	
P20	P20: Yeah, as I say, I read it literally just before.	
P20	Kasia Howley: Okay.	
P20	Kasia Howley: I know I sent it to everyone but I never want people to feel pressured, I know people are busy so I always like to give a little chance to refresh or take a look, you know, if no one's had the chance!	
P20	P20: Yes.	
P20	Kasia Howley: So can you share any thoughts you've got on it, anything that it highlighted for you, anything that was new, anything it affirmed, or didn't?	
P20	P20: Yeah, when I was when you had the what does vocal when does vocal fatigue happen?	
P20	P20: I would say, certainly out of the 5 you put there.	
P20	P20: I would say 4 of them hit a note anyway. Yeah, I would say, yeah, yeah, I'd do that. Oh, yeah, I'd do that.	C266 - Connection with all the potential causes in the guide
P20	P20: Symptoms,	
P20	Kasia Howley: Do you think those are maybe reflective to things that you, I might have experience?	
P20	P20: Yeah, reduce control, definitely. Vocal power, yeah.	
P20	P20: Yes, and discomfort, yeah, yeah, I, yeah.	
P20	P20: All of those.	C74 - Relatability of the symptoms
P20	Kasia Howley: It's good to know that it's reflective for someone that's using their voice so frequently.	
P20	P20: And so I think most, I don't know, I don't, I don't really speak to many other singers on this sort of level, you know?	C267 - Lack of close communication with other singers surrounding vocal health
P20	Kasia Howley: Yeah, no, it's good to know.	
P20	P20: It's always, yeah, gig was fine, yeah, great, mate, yeah. You're talking about the crowd rather than how you performed.	
P20	Kasia Howley: Of course, yeah.	
P20	P20: Yeah, as I say, I would... I can normally...	
P20	P20: I normally know if I'm gonna go into a gig, if...	
P20	P20: If I'm suffering from fatigue, I can normally tell before the first note.	
P20	Kasia Howley: Yeah, which is good.	
P20	P20: It's kind of a feeling. It is, but...	
P20	P20: I I I hate to cancel anything.	
P20	P20: I don't think I've ever canceled a gig, apart from this... that's why.	C268 - Reluctance to cancel gigs
P20	Kasia Howley: Yes.	
P20	P20: Stressed out about the one the other week. Yeah.	
P20	P20: Yeah, because I don't even... I went through...	
P20	P20: like, it must be 2 Christmases ago, I had a cold and I knew I had a, it was a proper sore throat.	
P20	Kasia Howley: Yep.	
P20	P20: And I thought, I can't cancel. This is Christmas gigs, people are expecting. And I just sung through it for the week, for the 3 gigs at that weekend, and then I tried not to talk for a week.	C22 - Pushing through vocal difficulties
P20	P20: Until the next weekend, because I knew I was...	
P20	P20: And I don't know how much damage I will do. I always worry about you hear about professionals getting nodules and stuff. Yeah. And I do worry	
P20	P20: I always worry about.	
P20	P20: Whether I would ever know the symptoms of that, or whether it would just be...	C269 - Uncertainty when fatigue can become an injury
P20	Kasia Howley: Yes.	
P20	P20: Feel fatigue for longer or?	
P20	Kasia Howley: This was another question that came up,	
P20	Kasia Howley: It's interesting because it's the fear factor at the same time and I think that's what I wanted to avoid. I don't want to write certain words on there	
P20	P20: Yes.	
P20	Kasia Howley: Because I know how certain words can scare people and that's, that's something I didn't want to do with this guide. I didn't want them to read and go, I could get this, oh my god.	
P20	P20: Oh, my God. No, yeah, yeah.	
P20	Kasia Howley: I have put something on, the, the last page, about the three weeks	
P20	P20: It was more than 3 weeks, then seek advice	
P20	Kasia Howley: Yeah	
P20	P20: I see that on the left.	
P20	P20: It's the same with... I would say the same with anything.	
P20	Kasia Howley: Mmm.	
P20	P20: If it's prolonged, see your doctor, see your GP, see your specialist.	
P20	Kasia Howley: Yeah, yeah.	
P20	Kasia Howley: Was there anything on the guide that you didn't know, or that was new to you?	
P20	P20: Umm.	
P20	P20: Ahhh.	
P20	P20: I'm just reading through the...	
P20	P20: The actual science side of it.	
P20	Kasia Howley: Yep.	
P20	P20: I think we all know a little bit, but none of us, oh, I certainly didn't know.	
P20	Kasia Howley: Yes.	
P20	P20: Obviously, the neuromuscular vocal fold yeah, I suppose.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P20	P20: Central neural mechanism, I wouldn't have really thought about. I wouldn't have thought that that would have been an issue. I thought that was... if I had...	C76 - New and thought provoking information
P20	P20: A neurological disorder of.	
P20	Kasia Howley: Yes.	
P20	P20: of some sort, maybe, but... I wouldn't have sort of attributed that if I...	
P20	Kasia Howley: Yeah.	
P20	P20: started.	
P20	P20: Sort of slurring all the time or had problems.	
P20	P20: Yes.	
P20	P20: Yes, like, the metabolic, I wouldn't have really thought.	C258 - Appreciation of scientific depth
P20	Kasia Howley: Yes.	
P20	P20: Because I generally, as a rule, I don't eat.	
P20	P20: Interesting. I I will eat early in the day, but I won't eat before a gig. And it's more more for the burping into microphones and getting indigestion	
P20	Kasia Howley: Yes.	
P20	P20: while you're singing, I just try not to... I try to avoid that.	
P20	Kasia Howley: And do you find that interesting to know, reading this sort of information?	
P20	P20: I do, yeah. I'm, as I say, I'm...	
P20	P20: I'm not saying I'm... I'm a reasonably educated.	
P20	P20: I read a lot of medical stuff as well, so yeah, I find it very, I find that interesting, yeah.	
P20	Kasia Howley: Yeah. And is there any feedback? This could literally be anything. It could be formatting. It could be anything	
P20	P20: No, I thought, as I say, it was quite, I thought it was quite well, well laid out when I read it.	C72 - Clear and accessible design
P20	Kasia Howley: Okay!	
P20	P20: Yeah, it has everything, and it's...	
P20	P20: Segmented, which I like, so you can go from one to the other, yeah.	C72 - Clear and accessible design
P20	P20: It is very clear	
P20	Kasia Howley: That's good, that's good.	
P20	P20: Yeah. Just a tight font on the last ones, but Zoom is great!	
P20	Kasia Howley: Oh well that's brilliant! Thank you so much!	
P20	P20: No, no problem.	
P20	Kasia Howley: Well, I'll stop recording now!	

P27-MTP - Interview Coding

P27 CODING

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
Individual Interview - Professional MT Performer P27	Kasia Howley: So, you have already completed the questionnaire and have an understanding of the process and what this is for. Just to reconfirm, master's degree studying vocal fatigue for professional voice users, those who work with them, collaborators, to bring more knowledge into the field. And this interview is a semi-structured interview, so I've got some questions, however... They're... they're open for discussion, so they're a kind of guide for how we can follow the structure, but if it goes in different directions depending on where you want to take it, we can absolutely do that as well.	
P27	Kasia Howley: So to start, can you just tell me a little bit about your professional background and how you use your voice professionally on a day-to-day basis?	
P27	P27: Yeah. So I am a professional musical theatre performer, and that's been across, like, UK tours and the West End. So, like, obviously on a day to day basis, it would be, on a full eight show weekday, it would be.	C1 - Demanding weekly schedule
P27	P27: Dependent on if I was on for a cover or not. If I was, I would always have a warm up and a sing through of the material at home before I got to work. And then I would go into company warm up from six o'clock, do that, and then, obviously, the show runs and closes around 10ish	C2 - Self developed warm up C5 - Preparation dependant on role C3 - Company led warm up
P27	P27: so it's, like, kind of, like, a good four hours of using your voice at work and pre work	C4 - Demanding daily schedule
P27	Kasia Howley: And do you do anything else alongside, performing? So are there ever any weeks where you perform and do anything else work-wise? That could be, auditions, could be teaching?	
P27	P27: Yeah. So again, obviously, like, in terms of what, like, the couple of jobs, the jobs that I have done.	
P27	P27: It depends what time of year it is, as to how many auditions are coming in, but it could be that you're then practicing for certain material for auditions, and again, that could go up to, like, six rounds per	C6 - Seasonal demands C7 - Audition pressures
P27	P27: audition, so it could be quite often that I'm using the voice before getting to work. And then I also teach, dance alongside, performing. So, again.	C8 - High vocal workload C9 - Multiple professional roles
P27	P27: in an eight-show week, I wouldn't always teach every week. It could be one day of teaching, or it could be no... no teaching in... in... in a week. But again, in a day's work, I'd be teaching probably about six classes, hour long.	C10 - Demanding schedule outside of work
P27	P27: Where I'm quite heavily using my voice because obviously I'm shouting over louder music.	C11- "shouting over louder music"
P27	P27: Constantly. So it is that is more heavy when I'm teaching and performing as well.	C12 - combined vocal demand
P27	Kasia Howley: So back to the vocal fatigue side of it. If someone said the term vocal fatigue to you, what would it mean to you?	
P27	P27: And instantly you go to that you're feeling tired.	C13 - Feeling tired
P27	Kasia Howley: Yep.	
P27	P27: I'm... In that sense, like, I feel like it's like it might be a little bit sore.	C14 - Sensation of pain
P27	Kasia Howley: Yes.	
P27	P27: It might be that.	
P27	Kasia Howley: Is that like a physical feeling you can feel?	
P27	P27: Yeah, like, like, you know, like.	
P27	P27: Yeah, like, I feel it internally, I feel, and whether that's a little bit scratchy.	C15 - Scratchy voice
P27	P27: Or it might be, for instance, like to get into the higher range of my voice. It's not as clear. It's not as strong.	C16 - Reduced vocal flexibility C17 - Reduced vocal clarity
P27	P27: To hit those notes and you go, oh, okay, there's, it's not quite feeling.	
P27	P27: healthy today, I suppose.	C17 - Reduced vocal clarity
P27	Kasia Howley: And do you ever notice anything different in your, physicality, behaviour or have emotional responses when you're feeling like that?	
P27	P27: I mean, I'm a really annoying person and I get really frustrated with myself very easily, but when stuff, especially in terms of with my voice, so like if I can't get to that high register or I can't quite hit the notes the way I get frustrated.	C18 - Frustration with vocal limitations
P27	Kasia Howley: Yes.	
P27	P27: I feel then impacts my voice more so, and I understand that that.	C19 - Emotional impact on voice
P27	P27: does have an impact, but I struggled to get myself out of that. So, like, it's more like a mental thing for me. It's more about the panic of, oh no, is my voice gonna come out?	C20 - Fear of voice not functioning
P27	Kasia Howley: Yep.	
P27	P27: the way I want it to. Yeah. Quite often I've had it, like, at work where, I've been on and had to sing solo and whatever, and I've felt a bit tired or a bit...	
P27	Kasia Howley: Yep.	
P27	P27: But then obviously, again, once you're in there doing it, adrenaline takes over and it does come out.	C21 - Adrenaline takes over
P27	Kasia Howley: Yep.	
P27	P27: Whether that's a good thing or a bad thing.	
P27	P27: Probably pushing through where I shouldn't push through.	C22 - Pushing through vocal difficulties
P27	Kasia Howley: Mmh.	
P27	P27: It does always come out and then it's, I suppose it's just then trying to reset.	
P27	Kasia Howley: Yeah. Is there an experience where, it could have been an audition, it could have been on stage, could have been in a rehearsal process where you have felt vocal fatigue, in one of those moments and what happened? How did you feel?	
P27	P27: Yes.	
P27	Kasia Howley: in the situation.	
P27	P27: I mean, I don't know if we should talk about this or whatever, but I've been to Glastonbury.	C23 - Guilt around non-work activities
P27	Kasia Howley: You can, yeah!	
P27	P27: I've done a lot of drinking, a lot of singing along, watching music, talking over loud music, and I'd come back from Glastonbury and then it turned out that the girl that I covered was then off the whole week after.	C24 - Recreational voice use
P27	P27: So then I was on for my cover for that whole week and we were, if I didn't do it, we'd be severely cut. So like I felt a little bit like, oh, I should do this. Also, I shouldn't be using Glastonbury as an excuse to not do it. But it kind of then turned into like a really barksy cough that I had.	C25 - Feeling obligated to perform
P27	P27: Coming off the back of it.	
P27	P27: And each show that I went on for that, I was like, please, God, let me not.	C26 - Performance anxiety
P27	P27: Like, I'd come off stage from a dance number and be coughing my guts up.	
P27	Kasia Howley: Yep.	
P27	P27: And I'd go on to do the song.	
P27	Kasia Howley: Yes.	
P27	P27: And for somehow and somehow, I got through the whole song, would come up again and cough my guts up.	
P27	Kasia Howley: Mmm.	
P27	P27: It.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P27	P27: It maintained and it stayed and it all came out clear and.	
P27	Kasia Howley: Yes.	
P27	P27: on stage, and again, I don't know if that's, like, adrenaline	C21 - Adrenaline takes over
P27	P27: Adding to that or whatever, but that was a period that I was like, oh god, I felt really.	
P27	Kasia Howley: And did that kind of affect you mentally through the week as well?	
P27	P27: A little bit, because it was just constant panic, and like, I'd go into work, and please, I really hope this comes out, like, and it was more of that, I felt like I had to do it, because otherwise we'd be on, like, an emergency cover to do it.	C26 - Performance anxiety C27 - Didn't want to let the company down
P27	P27: So I would just constantly a little bit on edge and like that song used to come in like near the end of act two for me.	C28 - Feeling of constant anxiety
P27	Kasia Howley: a lot of time to wait.	
P27	P27: Yeah, so, like, I'd be coming off dance numbers, like, exhausted, and that affected my voice then, after singing.	C29 - Effect of dance and singing on vocal fatigue
P27	Kasia Howley: Well, that's another thing I wanted to ask, as you said, you dance predominantly. Do you feel there's an effect on, and there is a relationship between fatigue in dance and vocal fatigue?	
P27	P27: I think so, because it's a general, like, whole body feeling, isn't it? You know, like, if you, like, you really, like, a physical fatigue. Yeah. Really obvious and really clear, like, your body feels like it needs to rest. Yeah. And...	C30 - relationship between physical and vocal fatigue
P27	P27: I think it... for me, then, whenever that happens, I... like, I'm always prone to getting a cold and a cough of anywhere, and I feel like that usually ends up bringing on some form of...	C31 - Physical fatigue then leading to illness
P27	Kasia Howley: Yes.	
P27	P27: illness that follows it. I feel like my body's not fighting.	
P27	Kasia Howley: Mhmm.	
P27	P27: So I've noticed that quite a few times where I feel fully exhausted.	
P27	P27: I then get...	
P27	Kasia Howley: Yeah	
P27	P27: Things on that side, so I do think that they do.	
P27	P27: Go together.	
P27	Kasia Howley: Yep.	
P27	Kasia Howley: what factors do you find, and it can be just for you, it can be things you've heard about, that contribute to vocal fatigue?	
P27	P27: For me, I think it's like, you know, if you push.	C32 - Pushing the voice
P27	Kasia Howley: Yes.	
P27	P27: If you push it too much. And, like, for instance, like, so when I did, like, [rock musical] and stuff, like, it's such a big, high belty sing.	C33 - Different demands of material
P27	P27: whether you're in the ensemble or you're playing that, like, it's... you are expected to... to give it welly the whole time, and it's... So I think sometimes there, you can really...	C34 - High vocal expectation
P27	P27: push too much on it, and especially, I think, like, especially in a show like that, where it's a rock show, the feedback on stage is loud.	C35 - Impact of feedback on stage
P27	Kasia Howley: Yes.	
P27	P27: You've not got any ears in, you've not got anything like that, so it's like, you're then hearing that and you're on top of it, so sometimes it can go without you realising.	C36 - No in ears in musical theatre
P27	Kasia Howley: Yeah, so it's kind of two things there like, I suppose environment and the different style of the show you're in, almost like a rock concert.	
P27	P27: Yeah, yeah, yeah.	
P27	Kasia Howley: But.	
P27	P27: They want it loud.	C37 - Pressure to create loud sound
P27	Kasia Howley: Yeah, and you're not getting the same treatment as a musician who would be in a rock concert and have in-ears.	
P27	P27: Yeah. Which? Yeah.	
P27	Kasia Howley: then like you said as well, the demand of the material.	
P27	Kasia Howley: if you compare that show to another show you've done, would you say there's a, there's a big difference in the demand of the material and how that can contribute to your voice?	
P27	P27: Yeah, Again, I think because it's like, say, like, when I did [west end movie musical] , for instance, it was singing in a completely different place.	C33 - Different demands of material
P27	P27: We, like, I'm going to say 'twee'	
P27	Kasia Howley: Yep.	
P27	P27: It was a little bit more, finding a different sound that I feel like even when you're vocally tired, you could get that.	C38 - Adapting vocally when tired
P27	P27: In a different way, whereas...	
P27	P27: [rock musical], when it's such a rock show, it wants the growl, it wants the growl.	C33 - Different demands of material C39 - Stylistic vocal demands
P27	Kasia Howley: And do you feel like that's something that's discussed at the start of a process, the difficulty of the material and, like, the demand of the material?	
P27	P27: No, I think you just taught it. Obviously, they tell you how they want you to see it.	
P27	P27: Well, they don't, I suppose, all the time. I think in Bat Out of Hell, it was very much, like, we got told, punch it out, fire it out, like, find that big sound. But other shows that I've done, I don't think you necessarily, unless you're working on, like.	C37 - Pressure to create loud sound
P27	P27: Solo material or whatever, and they might be like, oh, let's really try and find this sound here, blending it together or whatever.	
P27	P27: You don't really, you just kind of learn it.	C40 - Limited preparation before high vocal demand
P27	Kasia Howley: Do you feel like that can then make people think, because the demand isn't acknowledged, they	
P27	Kasia Howley: just think they have to get on with it?	
P27	P27: Yeah, maybe.	
P27	P27: Maybe it is like.	
P27	P27: I don't know, I would just think, because the show, obviously.	
P27	P27: I don't know, because it's such a dancey show as well. Yeah.	
P27	P27: And, like, for me going into that show, like, I'm primarily a dancer first.	
P27	Kasia Howley: Yeah	
P27	P27: Singer second.	
P27	Kasia Howley: Yes.	
P27	P27: And so I was a swing on that show, which then I was primarily there to.	
P27	P27: save the ensemble vibes, but obviously also covered. So I think for someone going in that's maybe less experienced vocally.	C41 - Pressure of being a swing

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P27	P27: And then being expected to hold and maintain these massive sings.	
P27	P27: I feel like that was, maybe a bit of a shock to the system sometimes.	C42 - Lack of experience
P27	Kasia Howley: Yep.	
P27	P27: And we're not really told, like, I suppose, like, on jobs that you're not really told, oh, make sure that you're steaming, doing this, it's just expected that you should know.	C43 - Expectation of knowledge around vocal hygiene
P27	Kasia Howley: Yeah, and even the acknowledgement maybe of that it is demanding material, so people feel like, oh, it's okay that I find this....	
P27	P27: It's challenging.	
P27	Kasia Howley: Yeah, maybe.	
P27	P27: But I'm actually doing it right. I'm a singer.	
P27	Kasia Howley: Yeah.	
P27	P27: When they're saying, can you growl on this? Well, am I growling in a safe way?	C44 - Uncertainty about safe vocal technique
P27	Kasia Howley: Yes.	
P27	P27: Probably not, I don't know.?	
P27	Kasia Howley: That's a really interesting point, so people are trying to make certain sounds.	
P27	Kasia Howley: In the room with no guidance, I suppose?	
P27	P27: Yeah, yeah, yeah.	
P27	Kasia Howley: Mhmm.	
P27	P27: So it's, yeah, I think unless you like work with a voice teacher, a singing teacher, that material to say, right, how do I find this sound?	
P27	Kasia Howley: Yeah.	
P27	P27: Okay.	
P27	P27: You wouldn't, you wouldn't get help that in a rehearsal room because obviously it's got to be quick. You've got to get through all the material. You've got to get going and you've got to get, get it right. So it could be that you're doing it really unsafely.	C45 - Pressure of timescales
P27	Kasia Howley: Yeah, no, definitely. So going off this what approaches do you know about that can help you manage vocal fatigue? And these can be ones that you use and you find beneficial, or even ones that you have heard about?	
P27	P27: So, like, I've got a steamer, so I've got one of the Dr. Nelson steamers, which at first, when I first had that, I used to just use that	C47 - Vocal steaming
P27	P27: Even, like, before I was immediately about to sing. Yeah.	
P27	P27: But then...	
P27	P27: Someone along the grapevine, I can't remember who, told me that you should do it when it's hot steam, you should do it, like.	C48 - uncertainty around vocal steaming
P27	P27: hours before you sit. It shouldn't be straight away. But again, that's just me kind of	
P27	P27: going off word of mouth and what people have said. So I tend to use that now, like, at the end of a day, I'd come home, steam that way, go to bed, let it rest type of thing. And then I've got a nebuliser that, if...	C46 - reliance on word of mouth advice C49 - Nebulising
P27	P27: I was to sing immediately, that's what I would be using.	C50 - Nebuliser for immediate singing
P27	P27: I've recently got a vocal, a straw,	
P27	P27: Which, I'm not gonna lie, I've not used as much as I could, but I think that's mainly because I go, what do I actually do with it? Yeah.	
P27	Kasia Howley: Yeah	
P27	P27: I'm like, what exercises?	
P27	P27: Am I supposed to be doing other than, like, kinda going up and down the scales that I've been doing, but is there anything else that I could actually Yeah.	C51 - uncertainty around methods
P27	P27: But they're kind of like the three...	
P27	Kasia Howley: Yeah, and with those, you spoke about the straw, with the steamer and the nebulizer, what do you feel like those specifically target for you?	
P27	P27: I feel like the nebuliser for me makes me feel more moist.	C49 - Nebulising
P27	Kasia Howley: Okay. Yeah.	
P27	P27: So like, you know, like sometimes if I'm feeling a bit raspy or I'.	
P27	Kasia Howley: Yes, it offers a bit more clarity, yeah.	
P27	P27: If I have that, it just produces... it feels like it just...	
P27	P27: produces a bit more moisture in there to maybe help it come out, whereas I see, like, the hot steam, I feel like that's more of, like.	C47 - Vocal steaming
P27	P27: I say, like, a bit of a reset, like a.	C52 - Steam for vocal reset
P27	Kasia Howley: And do you feel that benefit from it?	
P27	P27: Okay.	
P27	P27: I don't really know.	C53 - Uncertainty about treatment effectiveness
P27	Kasia Howley: Okay, and are you doing it?	
P27	P27: I'm doing it because I think I should.	
P27	Kasia Howley: Mmm.	
P27	P27: Definite, because I've, because I feel like it's a thing to have. Yeah.	
P27	Kasia Howley: Yep.	
P27	P27: Do I... but maybe I don't do it enough religiously.	
P27	Kasia Howley: Mmm	
P27	P27: to...	
P27	P27: to notice that, yes, this really works, and then if I don't do it... Yeah. So maybe I need to make sure that it is more of a, do I steam every single night that I come home from work, or whatever, or what is it? I don't know.	C54 - Inconsistency of mitigation strategies
P27	P27: But I definitely, I think in terms of the nebulizer, I think I feel.	
P27	P27: A day for...	
P27	Kasia Howley: Feel that difference.	
P27	P27: Immediately.	
P27	P27: And then I'm also a sucker for, like a Jakemans.	C55 - Use of lozenges
P27	Kasia Howley: Yep.	
P27	Kasia Howley: And what do you feel like that does for you?	
P27	P27: So that, again, for me, I feel like that	
P27	P27: Like when I've, again, I use them quite often when I'm teaching now. So like if I'm raising my voice over music, I get this like, (gestures to discomfort around laryngeal region and makes creak sound) like I'm like.	C11- "shouting over louder music"

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P27	Kasia Howley: Yeah	
P27	P27: You did in here.	
P27	P27: Then if I have a Jakeman's whilst I'm doing it, I just feel it like, I'm going to say like loosens it.	C55 - Use of lozenges C56 - Perceived benefit of lozenges
P27	Kasia Howley: Yeah	
P27	P27: It it feels clearer.	
P27	Kasia Howley: Yeah, and are you using the menthol ones, or the...	
P27	P27: I use whatever the cherry ones are?	
P27	Kasia Howley: Okay, yes	
P27	P27: Yeah. I don't know if it's just the general, you know, like, sucking on something and having that moisture just...	
P27	Kasia Howley: And do you feel like you do have a generic process, schedule,	
P27	Kasia Howley: I suppose is the word, that you know, this is what works for me. This is my process to manage my vocal fatigue if I feel like I'm experiencing it.	
P27	P27: Erm, No	
P27	Kasia Howley: Or not is fine,	
P27	P27: I'll give some stuff a go and see what happens, but I just, I feel like	C57 - Trial and error approach
P27	P27: Recently, I'm really relying on Jakeman's for a general.	
P27	P27: Interesting. Like, during my day, what can I have that immediately gives me some relief?	C58 - Seeking immediate relief
P27	Kasia Howley: Mmm. Mmm.	
P27	P27: I'll grab a jakemans	
P27	P27: When I'm in a heavy.	
P27	Kasia Howley: Yeah	
P27	P27: Teaching period	
P27	Kasia Howley: Yes.	
P27	P27: If I'm just going to work and performing.	
P27	P27: I don't have jakemans	
P27	Kasia Howley: Yeah, yeah.	
P27	P27: Although that said, that said, when we were on [rock musical tour] , we used to get gifted loads of Jakemans and everybody, all the leads used to suck on the Jakemans in between scenes, in between songs.	C59 - Commercially promoted vocal remedies
P27	P27: Which I didn't, because I was like, I don't feel like I need to, because I don't feel like I need to. But it was interesting to see how many of them were using them.	
P27	P27: Hmm. And between. Yeah.	
P27	Kasia Howley: Yeah, and it kind of goes on to the next one of, in the career you do, do you think prevention is prioritised, or do you think...	
P27	Kasia Howley: relief is prioritised. So, do people work on preventing vocal fatigue, or do people,	
P27	Kasia Howley: react to it when it happens?	
P27	P27: I think they react to it when they get it as a whole.	C60 - Reactive management of vocal fatigue
P27	P27: Generally.	
P27	Kasia Howley: Yep.	
P27	P27: like my friend, she's literally just messaged me now, so she's in [comedy musical west end], and I'm supposed to be seeing her on Friday.	
P27	Kasia Howley: Yep.	
P27	P27: Voice noted me and she sounds like she's getting.	
P27	Kasia Howley: Yep.	
P27	P27: She's getting laryngitis, but she's like, I know I've got loads of people in tonight and tomorrow watching me, but I'm the only person in on Friday watching her, so she's thinking.	C22 -Pushing through vocal difficulties
P27	P27: I think I can plow through and get through tonight and Thursday.	
P27	P27: But probably not Friday.	
P27	Kasia Howley: Mmm.	
P27	P27: I'm just like, but again, like, I could hear it in her voice, and I go, really? Yeah. You should call off today, you shouldn't be doing that, but then...	
P27	P27: You have that added pressure	
P27	Kasia Howley: how comfortable do you feel and how much within the industry do you feel it's comfortable for people to acknowledge vocal fatigue and talk to those in a position of power to you. Like, MDs, producers, anyone that you feel that you would have to	
P27	Kasia Howley: talk to about it?	
P27	P27: Well, I think... I think, again, it obviously depends on what your...	
P27	P27: role is within the company. So, for instance, obviously, if you're the main role, a main role that's expected to sing multiple songs a night.	C61 - role dependant responsibility
P27	P27: I think you should be a lot more aware and have those conversations, and if you do start to feel this isn't good.	
P27	Kasia Howley: Yep.	
P27	P27: Have them conversations and say, look, I'm not sure I'm going to be able to get through the week of shows or whatever, let's make a plan now.	
P27	P27: But I do feel like if you're, like, for instance, if you're in the ensemble.	
P27	P27: Is doing the ensemble vocalist stuff.	
P27	P27: I think you can manage it a bit easier, whether that's you just pull back a little bit.	C61 - role dependant responsibility
P27	Kasia Howley: Mmm.	
P27	P27: On the singing, I know there's been times before, I mean, this is when we've been in severe cut shows, which again, didn't happen, but it'd be like, they'd turn your mic off, so you wouldn't have to sing. Okay. That's to save the show, basically. So you'd come and mime as an ensemble member to then make sure the show happens.	C62 - Mic turned off to reduce vocal demand
P27	Kasia Howley: But then you're still doing the physical fatigue.	
P27	P27: Still doing the physical, whereas if you've, obviously, if you've got laryngitis or you've got something wrong here, it's probably going to affect you physically as well	
P27	Kasia Howley: interesting, Something I'd like to ask. Working as a swing	
P27	P27: Okay.	
P27	Kasia Howley: So you'll spend a lot of time on stage, you know, going on for lots of different tracks, but obviously there will be times where you are not on the stage at all.	
P27	P27: Yep.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P27	Kasia Howley: Do you feel more pressure if, for example, it was a day that you had to go on and say you'd been offstage for two days, but then you were vocally fatigued, because you might have had auditions, you might have been teaching, is there an added pressure for swings, because you're not on constantly?	
P27	P27: Yeah, I think so for sure, because essentially we're there to save the day. Yeah. And there's been multiple times.	C41 - Pressure of being a swing
P27	P27: On a show where if we weren't on.	
P27	Kasia Howley: Yeah.	
P27	P27: It might have been a cancelled show or it'd be like a really bad.	
P27	P27: The show would look so bare and stuff wouldn't get moved in the right place. Set wouldn't be able to come on and off if we were there.	C41 - Pressure of being a swing
P27	Kasia Howley: Do you feel guilt for that?	
P27	P27: Erm... It's really hard because I'm in this, that old school way of like.	
P27	Kasia Howley: Yeah. Yep.	
P27	P27: Show must go on and I, like, for me, I plow through things and I push through if I feel a bit crap or whatever, like, I'm just one of those people. Whereas I do feel like the younger generation coming through now.	C63 - "Show must go on" mentality
P27	P27: Are a little bit more inclined to.	
P27	P27: Say I can't do the show.	C64 - Generational differences
P27	P27: For, like... Lesser things than what I would maybe say.	
P27	Kasia Howley: Yeah.	
P27	P27: to go off the show. So I think, I think there is a new way of.	
P27	Kasia Howley: Thank you.	
P27	P27: Thinking coming into the industry.	
P27	Kasia Howley: Right.	
P27	P27: Whether that's a good thing or not, I don't know because I feel like the resilience side of.	C65 - Balancing resilience and health
P27	Kasia Howley: Yeah.	
P27	P27: Can you maintain that, but like, it's not, do you know what I mean? I'm like.	
P27	Kasia Howley: Mmm.	
P27	P27: Are you healthy enough to do this job?	
P27	Kasia Howley: Yeah, I see.	
P27	P27: To that point, sometimes, you know.	
P27	Kasia Howley: Do you ever have a talk before you start the shows, go into show period,	
P27	Kasia Howley: About taking time off?	
P27	P27: No.	
P27	P27: Obviously, we all get holiday.	
P27	Kasia Howley: Yeah, yeah.	
P27	P27: So you could take that as and when it works with the company.	
P27	P27: And then you get a certain amount of sick days as well. So you do have all of that to use, which is great. It's it is there for backup and you get paid if you're off sick and whatever. So I think that support is there, but you don't really have and we have had it.	C66 - formal sick leave support
P27	P27: Until it gets into, like, we're severely cut, and there's a lot... like, we once had, like, 10 people on the show, and at that point, you're like... we were running around like headless chickens to keep the show going.	C67 - Cast members off/illness creates extra pressure
P27	P27: When it gets to that point, the company manager will probably step in and say, look, everyone, please make sure you're keeping yourself healthy. Obviously, if any other people are off, we will have to cancel the show. It's it's that kind of please push through where you can. So it's it's hard because they obviously.	C68 - Pressure to push through
P27	P27: If a show's canceled, they lose out on so much money, so there is that pressure of, if there were 10 people off, and then you knew that you were really unwell.	C69 - Personal pressure
P27	Kasia Howley: Yeah. Yep.	
P27	P27: But if you went off, the show would be canceled. There is that pressure to go, well.	C63 - "Show must go on" mentality
P27	Kasia Howley: It's on me, yeah.	
P27	P27: it's on me, so I'll come in.	C63 - "Show must go on" mentality
P27	Kasia Howley: Yes.	
P27	P27: Oh, do you?	
P27	Kasia Howley: Yes.	
P27	P27: Feel guilty if the show doesn't go on.	C70 - feeling of guilt if the show cannot happen
P27	Kasia Howley: It's an interesting way to put it because.	
P27	Kasia Howley: Is that because they've been pushing through, if maybe one of the 10 people had taken a day off a few weeks before?	
P27	P27: They'd be alright	
P27	Kasia Howley: And that was advocated.	
P27	P27: Yeah.	
P27	Kasia Howley: Would then the 10 not be off at one point?	
P27	P27: Yeah, potentially. It's really hard, isn't it? Because sometimes when you're working in such a confined.	
P27	Kasia Howley: Yep.	
P27	P27: space and with people and obviously performers are so we're we're too close at times and you are just	
P27	P27: I do feel like sometimes if an illness comes into the company, it can spread like wildfire.	C71 - spread of illness within a company
P27	Kasia Howley: Yes.	
P27	P27: It is difficult because sometimes you go, yeah, if it was a gradual.	
P27	Kasia Howley: Yep.	
P27	P27: illness that was taking its time to get through the company.	
P27	P27: And if you took it off then, then maybe you'd be back and okay. But sometimes obviously it does hit everybody or half the company at once.	
P27	Kasia Howley: Yep.	
P27	P27: And you go, really, there's not much you can do with that.	
P27	Kasia Howley: No.	
P27	P27: Then you have to go off, and everyone else has to try and pick up the pieces until they're probably ill as well. I think, obviously, yeah, if you were... took a day off earlier, or two days off, as soon as you fell ill.	
P27	P27: Maybe that would prevent.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P27	Kasia Howley: Yep.	
P27	P27: that happening anyway.	
P27	Kasia Howley: Yep.	
P27	P27: But.	
P27	P27: You just don't know.	
P27	Kasia Howley: Thank you for all that. So that was part one. The next section is about the guide. So, I will bring this up on the screen as I talk about it. I know I sent it through to you as well, but just so you can see it here too.	
P27	Kasia Howley: So this is something that I created in my previous module. It's all research informed, and evidence based but it's still very much in refinement.	
P27	Kasia Howley: I'll still be tweaking it after the Masters. It's just a chance to see what you think of it, if you think something like this would be beneficial for your industry, and any thoughts that you have.	
P27	P27: I think it's very nicely laid out. I was like, it looks really nice and I think it is really useful because I like how it.	C72 - Clear and accessible design
P27	P27: It goes in stages, so it has, like, the initial, like, this is what we're going to talk about.	
P27	P27: Some common symptoms straight away that you go, oh yeah, right, I've had that and I've had that.	C74 - Relatability of the symptoms
P27	P27: Let me read on and then I do think it's nice and clear how it then goes on to describe each thing that can.	C73 - Logical structure of progression
P27	Kasia Howley: Yep.	
P27	P27: What is going on?	
P27	Kasia Howley: Yeah, next one.	
P27	P27: And I also really like how...	
P27	P27: I'm gonna say all of this wrong, but you know, like, how a technical term is written.	C75 - Accessible explanation of clinical terminology
P27	Kasia Howley: Yes.	
P27	P27: It actually is, but then it goes into kind of everyday.	
P27	Kasia Howley: Yes.	
P27	P27: person to explain, like, may present as this.	
P27	Kasia Howley: Yes.	
P27	P27: Do you know what I mean? So I think that.	
P27	Kasia Howley: Which was the aim, because the difficult thing is, do you still use the official technical term?	
P27	P27: Yep.	
P27	Kasia Howley: Or do you make the whole thing more bite-sized? But then...	
P27	Kasia Howley: Would people like, you know, people are smart, and.	
P27	P27: Yeah, yeah, yeah. And I think, I, I think it's good because.	
P27	P27: I think it's interesting.	C76 - New and thought provoking information
P27	Kasia Howley: Yep.	
P27	P27: Again, it depends on it, how, like, if you go, I am actually interested in this, let me know that this is what this is called, and this is this kind of fatigue.	
P27	P27: But I do think it's really clear.	
P27	P27: You know the bit where it is in the, like, everyday person, They may present as a weak voice qualitative. Maybe, I don't know, could that go in a different font/bold?	C77 - Improving guide readability
P27	Kasia Howley: Yeah! maybe, like, in a box, or so it stands out more?	
P27	P27: Yep.	
P27	Kasia Howley: So throughout the the guide I've put things in bold, mainly on the second page really	
P27	P27: Yeah	
P27	P27: It is really clear when you read it, when you read it all.	
P27	Kasia Howley: Yeah, but it's, I know what you.	
P27	P27: I think, like, yeah, to receive this, to look at it, you'd.	
P27	Kasia Howley: Yep.	
P27	P27: You automatically go to, like you say, the bold bits.	
P27	Kasia Howley: Yeah, you do.	
P27	P27: In a fancy box or whatever.	
P27	P27: And because there's like a scientific moment, either people go, oh, let me, I mean, what is it? Or people go, oh God, that's not me.	C78 - Optional choice for depth of information
P27	Kasia Howley: Yes.	
P27	P27: I think that's clear that you... Yeah. Like, that to me in the middle is the extra bit, that's the, like, meaty bit that... Yeah.	
P27	P27: You're either interested in it, or... Yeah.	C78 - Optional choice for depth of information
P27	Kasia Howley: Yeah, sure.	
P27	Kasia Howley: And is there anything that has highlighted something that you didn't know before? Any new information?	
P27	P27: Well, I mean, like, all of these, like, I mean, these fancy words, like, neuromuscular mechanism fatigue and all of that, like.	
P27	P27: I it's it's another world for me is all of that stuff.	
P27	Kasia Howley: Yes.	
P27	P27: But it's quite interesting to know that it's so broken down into like.	C79 - Balancing scientific detail with accessibility
P27	P27: All of those categories	
P27	Kasia Howley: Mhmm	
P27	P27: And I think it's really good to have, like, all of the different, like, prevention stuff and the relief side of it. Yeah. I think that's really nice and clear.	C72 - Clear and accessible design
P27	P27: Because it is detailed as to what.	
P27	P27: you can do for each of those as well, I think that's...	
P27	P27: A clear thing. But I also think, you know, like the why does the vocal fatigue happen.	
P27	Kasia Howley: Yeah.	
P27	P27: I bet loads of people haven't even thought about, like, the environment.	C76 - New and thought provoking information
P27	Kasia Howley: Maybe.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P27	P27: I mean, like, oh, like, it's just, like, stuff and, like, poor diet.	
P27	P27: That's, like, another thing that people...	C76 - New and thought provoking information
P27	Kasia Howley: And I was hoping maybe would then link you onto metabolism. Yeah. People might consider that as well?	
P27	P27: Yeah, yeah, like you'd go.	
P27	Kasia Howley: Mmm.	
P27	P27: Oh, right, right, just because I'm eating a bit rubbish. Is that, why does that affect this or the whole?	
P27	Kasia Howley: Yeah, and it's difficult because it is a leaflet, so you can't,	
P27	Kasia Howley: it's a really fine line I found between putting too much on there, because, like, there's so much you could say about steaming, there's so much about nebulising.	
P27	Kasia Howley: Do you think the bit at the bottom is helpful with the, if you have any questions, speak to someone? If you are, like, what do you mean the correct technique for steaming?	
P27	P27: Yeah, I think so, because, I mean, you've always got to have a bit of a disclaimer as well, because you go...	
P27	P27: Anybody could have maybe written this.	
P27	Kasia Howley: Exactly.	
P27	P27: So I always think.	
P27	P27: That is quite a good thing, and it's to then point you, I think, the thing of a whole, a qualified.	
P27	P27: vocal professional is the one, because, again, people... it's like, you know, like, your mate's not a qualified vocal professional, you know what I mean? It's like, you... if any of those... because, I mean, basically, the one where you've put, like, how to stop it happening and stuff, that's obviously the basic	C80 - Importance of a qualified professional
P27	P27: Way of doing that steaming and doing whatever.	
P27	P27: But like you were saying, obviously, there's so much more into it, so.	
P27	Kasia Howley: Yes.	
P27	Kasia Howley: The only other thing I would like to ask, is where would you see this being potentially beneficial in, the professional voice field?	
P27	P27: Like where to receive this?	
P27	Kasia Howley: Yeah, do you think it could be beneficial for certain people, for certain areas?	
P27	P27: Well, do you know what? I actually think it'd be great in	
P27	P27: Teaching...	
P27	Kasia Howley: Yeah?	
P27	P27: colleges and university level. I think this could absolutely, like when we were at college, we learned like a bit of a estill technique, but we never really learned like.	C81 - Importance of vocal fatigue education within training
P27	P27: To look after your voice and how to look.	
P27	Kasia Howley: Yep.	
P27	P27: And all of that. So I think 100% for like	
P27	P27: Students coming through that want to go into this industry, I think it's a perfect, like, here's a guide, these are the types of things that you should be doing now, basically, to.	
P27	Kasia Howley: Yep.	
P27	P27: this and to know how to deal with it in your professional working life. Yeah. But then I also feel like	
P27	P27: Why not have it at, like...	
P27	P27: Theaters and stuff, you know, like.	C82 - Workplace distribution of fatigue resources
P27	Kasia Howley: Yep.	
P27	P27: Backstage.	
P27	Kasia Howley: Do you think it will be received by people?	
P27	P27: I don't see why not.	
P27	P27: Yeah, it's hard, it's hard to know, isn't it? Because everyone is different, and you get, it depends what company you're in, what the, what the show's about.	
P27	P27: the people are like	
P27	Kasia Howley: Oh sure	
P27	P27: Jobs, all the jobs that I've done, if someone came around and gave us, like, if the company manager gave us this, everyone would receive it and look at it.	
P27	P27: For sure, I know that.	
P27	Kasia Howley: that's good to know!	
P27	P27: Yep.	
P27	P27: But I suppose it's...	
P27	Kasia Howley: Mmm.	
P27	P27: But it's like, well, is it like, would it be that you put it with equity? So like.	C83 - Integration with existing support systems
P27	Kasia Howley: That's a good point!	
P27	P27: When Equity come in and have their meetings with shows, and they have them regularly and stuff.	
P27	Kasia Howley: Yeah.	
P27	P27: That's something that these, they could pair up with like.	
P27	Kasia Howley: That's a really interesting area.	
P27	P27: They're gonna be paying for the insurance if you.	
P27	Kasia Howley: Yeah!	
P27	P27: need vocal surgery, do you know what I mean? So it's like, that could be a really good way coming in to give you our talk about it.	C84 - Normalising vocal health the same way as physical health
P27	Kasia Howley: Yeah, that'.	
P27	P27: We can help you, which it's very much like that, about the unions that we've got and.	
P27	Kasia Howley: Yes.	
P27	P27: things that they can offer us in terms of physio and all of that stuff. So you go well	
P27	Kasia Howley: interesting!	
P27	P27: It's kind of the same thing!	
P27	Kasia Howley: Mmm.	
P27	P27: It could be a thing that they then.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P27	P27: give out!	
P27	Kasia Howley: Yeah.	
P27	P27: to new companies as they go, because they, they see so many different types of shows as well. Like they do like fringe stuff and you, and then your big touring shows and all.	
P27	Kasia Howley: So true and it then kind of separates I suppose it makes people feel more independent and like that that's this is it's okay!	
P27	P27: Yeah, yeah!	
P27	Kasia Howley: If equity give out.	
P27	P27: It's, but it's just the same, isn't it? It's like how they would advise you to go and get physio. This is the same!	
P27	Kasia Howley: So true, that's a really good point.	
P27	Kasia Howley: Thank you.	
P27	P27: Welcome!	
P27	Kasia Howley: Well, if it's okay with you, I'll stop the recording now, if you're happy?	
P27	P27: Yeah, of course!	

P31-S/G - Interview Coding

P31 Coding

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
Individual Interview - MT Student (3rd year) P31	Kasia Howley: The way that the, interview will run is, I've got a set of questions, but they're just an idea and a guideline, so I'll use them as prompts, but then we let the interview flow naturally.	
P31	Kasia Howley: Then the second part is, we'll discuss the guide, but that's just in the back pocket for now, you don't need to discuss that yet. So to begin, could you say a little bit about your profession currently, so what stage you're at in your career, and how you use your voice professionally on a day-to-day basis?	
P31	P31: Yeah, so I'm in... I'm going into my graduating year, just finished second year at university [London dance college] For day-to-day basis, I have at least	
P31	P31: three singing lessons a week and one harmony class in which then we use a physical and vocal warm-up before doing solo songs so I always like to try warm up my voice in the morning even if it's at like lit trills obviously hydration throughout the entire day and to try and prevent like fatigue and stuff.	C85 - Vocal training demands C2 - Self developed warm up C86 - Hydration as strategy
P31	P31: And then, just within those vocal lessons, because that's the only time we really get for them, then I try, obviously, learning more about my voice, like, also testing, like.	
P31	P31: for me, what works and what doesn't, and what I need to work on throughout that.	C57 - Trial and error
P31	Kasia Howley: How many hours a day would you say you are singing when you're in training?	
P31	P31: About two hours a day, I'd say. Yeah. About two.	
P31	Kasia Howley: Yeah, and when it gets to show period, does that intensify or does it get less?	
P31	P31: So, because of the show we've just done, I think it's gone less, because we've had, like, more dance rehearsals within those times of where the singing lessons has been, so it has dropped quite a lot during showtime, but then in exam time, it rose, we had extra ones for this season.	C87 - Fluctuation of contact singing time within training
P31	Kasia Howley: It kind of fluctuates through the year. Yeah.	
P31	Kasia Howley: So, if I said the term to you, vocal fatigue, and none of this is right or wrong. If I did say those words to you, what would it mean to you?	
P31	P31: Vocal fatigue for me is when	
P31	P31: Everything to do with your vocal ability, like your larynx, or the mouth area, is all...	
P31	P31: Probably, like, under stress.	
P31	Kasia Howley: Yep.	
P31	P31: Definitely obviously tired, fatigued, and the fact that it's like probably dehydration or there's something not right and you then can't use your vocal ability to the best of its standards.	C13 - Feeling Tired C16 - Reduced vocal flexibility C88 - Vocal fatigue presenting as dehydration
P31	Kasia Howley: And when you, if you've experienced this before, when do you, what signs do you feel like you look out for personally?	
P31	P31: For me, for vocal fatigue.	
P31	P31: and I know it is because I'm dehydrated a lot of the time, I definitely think I'm... tightness within my, like, my tongue and my mouth area, and especially sometimes with vocal fatigue, I'll notice it in my warm-ups, I'll find it sometimes quite difficult to really...	C89 - Sensation of tightness around tongue and laryngeal region
P31	P31: Yeah, a lot of effort.	
P31	Kasia Howley: And you've mentioned dehydration a bit and knowing that that's caused it?	
P31	P31: Mainly because that's what I've been taught is the main reason, so then I obviously, like, track how much I drink throughout the day, and sometimes when I have drank lower than I normally do.	C90 - Uncertainty around cause of vocal fatigue
P31	Kasia Howley: And how much are you drinking, per day?	
P31	P31: At least... Probably, like, 4 bottlefuls.	
P31	Kasia Howley: And if it's a minimum day, how much would you say you're drinking?	
P31	P31: Probably 2.	
P31	Kasia Howley: are those bottles a litre?	
P31	P31: Yes, yes.	
P31	Kasia Howley: So the dehydration that you said, is that... do you feel dehydrated?	
P31	P31: I feel like I've been told it's dehydration.	C46- Reliance on word of mouth advice
P31	Kasia Howley: Okay.	
P31	Kasia Howley: So kind of going off from that, when you are feeling vocally fatigued.	
P31	Kasia Howley: And hearing different signs, how does it make you feel? that could be physical, behaviour, emotion, mental?	
P31	P31: Sometimes I feel quite, like, embarrassed, because I feel like...	C91 - Embarrassment around vocal fatigue
P31	P31: I know that a performer and singer shouldn't get fatigued, so then I'm like, oh, like, why?	C92 - Belief that performers shouldn't feel fatigue
P31	Kasia Howley: That's an interesting thing, you said they shouldn't get fatigued?	
P31	P31: Yeah! I feel, well, I don't know, because obviously, like, when you look at, like, training and stuff, they're like, oh, you're gonna do this for, like, a year, you'll be singing for a year, and, like, everyone seems to manage really well, so the fact that, like, when I'm vocally fatigued, I'm like, oh, I can't.	C93 - Feel like fatigue is personal failure
P31	Kasia Howley: That's interesting, so you feel like it's wrong.	
P31	P31: Yeah, yeah, I feel like it's wrong.	
P31	Kasia Howley: Do you feel like within your training there is a, let's say, like, not blanket, but like a shared	
P31	Kasia Howley: Understanding of the term and the condition?	
P31	Kasia Howley: That could be with, like, the people you work with, like tutors, or also, like, like, your peers?	
P31	P31: I feel there's kind of a shared, like, understanding, but then	
P31	P31: When no one really talks about it.	C94 - Fatigue is a taboo subject
P31	Kasia Howley: Mmm.	
P31	P31: So it's kind of hard to grasp what actual people could understand.	
P31	Kasia Howley: That's interesting. And can you like reflect on an experience in your training? This could have been rehearsals, it could be like singing and auditioning for your 3rd year shows, anything where you've experienced vocal fatigue and how you felt in the space or moment?	
P31	P31: Yes, I'd probably say one of the auditions from my exam, which was like a mock audition, I was vocally fatigued.	
P31	P31: I felt everything just like kind of tense up even like physically but then like my whole like emotionally because I knew everyone was staring at me and stuff.	C95 - Vocal fatigue causing physical tension
P31	Kasia Howley: Yeah.	
P31	P31: I just wanted to close in on myself quite a lot. Yeah.	
P31	Kasia Howley: So it felt quite awkward? Or embarrassing?	
P31	P31: Yeah, quite awful, quite embarrassing, because I didn't want them to think that I was vocally fatigued, even though I was.	C96 - Vocal fatigue causing embarrassment
P31	Kasia Howley: Yeah.	

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P31	P31: Obviously, they, I had singing teachers in the room, so I knew that they knew that I was, so it was like, oh.	C97 - Potential judgement due to vocal fatigue
P31	Kasia Howley: And did you tell anyone before you did it that you were?	
P31	P31: No.	
P31	Kasia Howley: Okay.	
P31	Kasia Howley: You kind of felt like you had to just do it?	
P31	P31: Yeah, especially because everyone's like, oh, don't tell anyone, like, if you're unwell or anything.	C98 - Culture of disguising illness in training
P31	Kasia Howley: Yes.	
P31	P31: So I was like, no, won't say anything then.	
P31	Kasia Howley: And we'll go back to that point, in a minute. And then in terms of your vocal fatigue, and it could be to do with training, this could be to do with personal life, anything, what do you feel like contributes to it for you? to make you feel vocally fatigued?	
P31	P31: I think when I'm fatigued, like contributions.	
P31	Kasia Howley: Mhm.	
P31	P31: Probably...	
P31	P31: Mmm... a lot of the time, I think sometimes overusing my voice, like, using too much effort in it. Yeah. Sometimes when I'm singing, I feel like I'm forcing it too much, and then when I'm doing that, especially, like, if I've done it 3 times a week, I'll feel like, oh, I can feel that now.	C32 - Too much vocal effort
P31	Kasia Howley: Yes.	
P31	P31: And then I feel like sometimes I won't push it as much and it feels a lot better.	
P31	P31: Yeah. Okay.	
P31	Kasia Howley: And do you feel like anything like in terms of, do you have a job outside of training?	
P31	P31: No.	
P31	Kasia Howley: what's your life like outside of when you're in training?	
P31	P31: Outside of training, I do a bit of gym and stuff, but nothing very vocal.	
P31	Kasia Howley: Do you ever feel like the gym work affects your vocal fatigue?	
P31	P31: No, no, no, because I feel like, because I quite drink a lot of water as well, I think that helps.	
P31	Kasia Howley: It's mainly like the increase of effort. And then in terms of like supporting vocal fatigue and working with it, do you feel like there are any particular strategies that you use to manage vocal fatigue? And those could be ones that you've been taught about, ones that you've just heard about.	
P31	P31: Yeah, I definitely up, like, my intake of water as soon as I start feeling it, and then I, I try massage around areas that I feel tight. Obviously not full massage.	C86 - Hydration as strategy C99 - Self led vocal massage to aid fatigue
P31	Kasia Howley: Yeah, yeah.	
P31	P31: damage anything, but quite a gentle one, especially if I'm really, like, tight in tension. Yeah. I'll try and get rid of that,	
P31	P31: a lot of the time, I also try to do longer warm-ups, so that I'm really getting into it. But they're probably the most... the top 3 that I could... yeah.	C100 - Longer warm ups when feeling fatigued
P31	Kasia Howley: And on that topic, do you feel like you have different strategies when it comes to preventing vocal fatigue and then managing it when it occurs?	
P31	P31: Yes. Sometimes with prevention, I don't do like a longer warm up. I'll just stick with like what my set one is. Yeah. I always try and intake like water and stuff to make sure I'm hydrated. Sometimes, obviously.	
P31	Kasia Howley: So in regard to these strategies, where have you developed them from?	
P31	P31: Probably from teachers at [dance college] that have told me this'll work, but sometimes they don't.	C101 - Inconsistent effectiveness of taught strategies
P31	Kasia Howley: So in terms of, and it's kind of on the same subject, do you feel like as a general, this could be at your university, this could be with your peers, it could be generically, do you think prevention is prioritised or do you think relief is prioritised?	
P31	P31: I think just relief, I think just the solution rather than prevention.	
P31	P31: Especially at [dance college]	C60 - reactive management of vocal fatigue
P31	Kasia Howley: And do you feel like vocal fatigue is recognised when it's happened or before?	
P31	P31: I think it's recognised after.	C102 - Vocal fatigue recognised when it occurred
P31	Kasia Howley: so when people have felt the effects of it.	
P31	P31: Yes.	
P31	Kasia Howley: And we kind of spoke about it before, but we'll go into it in a bit more depth. Do you feel comfortable discussing vocal fatigue with those in a position of power? And that could be an MD, a head of singing, singing department, anything like that.	
P31	P31: Probably not, especially my personal opinion at [dance college] . They have quite a high standard and quite like they have quite high authority and sometimes that they use that and.	C103 - Fear of judgement when seeking support
P31	P31: I don't really like going to them because I think they'll judge me.	
P31	Kasia Howley: And what, has there been any experiences where, like, the high authority, have they made comments before that have made you feel that way?	
P31	P31: They've made other people have comments, like they've commented on other people and said, well, you know, like they're just not ready then or something.	
P31	Kasia Howley: Really.	
P31	P31: And then obviously that's spread throughout our year group in which then I've heard of it.	
P31	Kasia Howley: And is there a process that you have at [your university] about communicating vocal fatigue?	
P31	P31: No, there isn't any process. I think it's normally, as soon as you feel fatigued, you go and ask a teacher what to do to prevent, not to prevent, but to, like, find a solution, and that's it. Right. There's not really a process to it.	
P31	Kasia Howley: And is there anything in terms of voice rest and things like that, a process, any of that at all?	
P31	P31: Yeah, most of the time, if you are fatigued, they'll just put you on vocal rest for probably a week or so.	
P31	Kasia Howley: What is the process of being put on vocal rest?	
P31	P31: So, you have to get signed by, like, a teacher to say that you... you are actually fatigued, and then you just take this piece of paper to a teacher throughout, like, harmony classes, acting through song classes, to say that you can't sing. But that's it.	C104 - Vocal Rest
P31	Kasia Howley: And do you think having that piece of paper is	
P31	Kasia Howley: A good thing or?	
P31	P31: It's like a sign saying that I'm not okay, I don't like it	C105 - Shame of vocal fatigue badges/signs
P31	Kasia Howley: Yeah	
P31	P31: Yeah, because it's like, oh, look, I've got this wrong with me.	
P31	Kasia Howley: Yeah, and do you feel like that's the same in dances as an injury?	
P31	P31: No, because I feel like in dance, we know that injuries do quite, like, it's... we... I feel like they're more talked about, and obviously, we have to do a lot of prevention on it, but we know that things can happen, especially, like, partner work and stuff, so, like, when I have a dance one, I'm like, oh, no, it's normal, I'm not embarrassed.	C106 - Difference between injury in dance and the voice

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P31	Kasia Howley: Right.	
P31	Kasia Howley: But then singing, you don't feel like it's talked about as much No, no.	
P31	Kasia Howley: No, that's really interesting. Anything else you want to share about opinions, thoughts about vocal fatigue in general, your experiences with it, perceptions?	
P31	P31: I do think that...	
P31	P31: we need... I, like, I would like to learn more about prevention rather than the solution, because I think, especially at [dance college], we just got taught, like, how to solve it, and sometimes...	C107 - Need for preventative education within training
P31	P31: people will just stay quiet and push through it to the point where they end up really damaging their voices. Like, I know two people have actually deferred a year because of that reason.	
P31	Kasia Howley: Okay.	
P31	P31: And they've just stayed quiet because it's so embarrassing, so I think definitely having, like, lessons and talking about what it actually is, and... because, especially the actual definition of vocal fatigue, I think not a lot of people do know it.	C91 - Embarrassment around vocal fatigue
P31	Kasia Howley: Yes.	
P31	P31: Definitely along those lines.	
P31	Kasia Howley: Do you think the terminology is used a lot? Do people call it vocal fatigue?	
P31	P31: I think, yeah, I think people call it vocal fatigue but not actually know what it is.	C108 - Accurate definition of vocal fatigue required
P31	Kasia Howley: Yeah, so it's almost like this.	
P31	P31: Yes.	
P31	Kasia Howley: mystifying condition?	
P31	P31: Yeah, yeah, actually.	
P31	Kasia Howley: No, that's really good to know. So kind of moving on from this.	
P31	Kasia Howley: I sent you the guide, I'll bring it up on here. Yes. This is something that I created in my last master's module. Essentially, it's all based on,	
P31	Kasia Howley: scientific evidence based research, that's currently available. It's also based on the way that people learn and digest information. But it's still very much in refinement.	
P31	Kasia Howley: once I've finished the Masters, I'll probably still be refining this as a product. It's more to see how it benefits people.	
P31	Kasia Howley: and if it does, at all. So, if you've got any, thoughts on what you think of it initially, if there's anything new in there, if it's highlighted anything, and you can take your time, no rush.	
P31	P31: I think definitely like straight away like my question to you was like what is vocal fatigue? Like what is the definition actually? And straight away I'm like oh my god there's the question, there's the answer.	C109 - Guide provides immediate clarification
P31	P31: Literally, so I think that is like perfect because.	
P31	Kasia Howley: And does that definition make sense in a way?	
P31	P31: Yeah, 100%.	
P31	P31: Especially, it makes sense to, like, for me to actually understand now what it is.	
P31	Kasia Howley: Yeah, yeah.	
P31	P31: It's like, yeah, and like, the second bit, identify my symptoms, like, assess the... everything, it's like, oh, that's what I want to know about, like, I literally, that's all written there. Especially, you've not made it so complex that I'm like, oh my god, what does that mean? Like, this is literally just what it is. Yeah.	C72- Clear and accessible design C75 - Accessible explanation of clinical terminology C76 - New and thought provoking information
P31	Kasia Howley: And does the order of that this work for you?	
P31	P31: 100%.	
P31	P31: Yeah, I think that's... I think that's perfect.	
P31	Kasia Howley: Ah great!	
P31	P31: I have that, yeah.	
P31	Kasia Howley: Symptom-wise, are there any symptoms that you, relate to there, or anything new, or anything that maybe isn't there?	
P31	P31: Reduced control of the voice and reduced overall vocal power.	C74- Relatability of the symptoms
P31	Kasia Howley: Yep.	
P31	P31: 100%, especially because, like I said, I was pushing a lot.	
P31	Kasia Howley: Yeah, that.	
P31	P31: So then afterwards, I felt like I had no power and control.	
P31	Kasia Howley: Yeah, yeah. And is there anything on there that you've never seen as a symptom before, or anything that maybe you didn't link to it before?	
P31	P31: Temporary loss of voice.	
P31	Kasia Howley: Yep.	
P31	P31: I always thought fatigue just meant, like, oh, it's a little bit tired, but not gone.	C110 - Expanded understanding of vocal fatigue severity
P31	Kasia Howley: That's a good point.	
P31	P31: Is that actually it's it's right if you have vocal fatigued? you can lose your voice?	
P31	Kasia Howley: And it's good to, I suppose, maybe in a way know that that's okay.	
P31	P31: Yeah.	
P31	Kasia Howley: Yep.	
P31	P31: Yeah, 100%, because, like, losing your voice, it's like, oh my god, how... how can I...	
P31	Kasia Howley: Yep.	
P31	P31: But no, that's... yeah.	
P31	Kasia Howley: I'll swipe over	
P31	P31: It's good to know as well like why does it happen that it's not just one cause like it is a lot of them because I've I was always thinking like oh it's only like one or two reasons dehydration and probably pushing but it's actually not.	C111- Expanded understanding of different causes that can potentially contribute to vocal fatigue
P31	Kasia Howley: And do any of those ring true to you? Any of those causes?	
P31	P31: Yeah. Yeah, definitely.	
P31	Kasia Howley: And any that you've not thought about or heard about before?	
P31	P31: I haven't heard of the sub-optimal vocal care.	
P31	Kasia Howley: Yeah, I mean, that, like, if you think of the word, like, suboptimal, essentially, is just a way of going, maybe we're not where we need to be, but then that's where your hydration might come in, diet, life, like, that sort of...	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P31	P31: Yes.	
P31	Kasia Howley: And does that make sense when you read the definition of it?	
P31	P31: Yeah, 100%, yeah. I've just never heard of it before, so I was like, oh, and then...	
P31	Kasia Howley: No, it's good. It's good.	
P31	P31: Yeah, 100%.	
P31	Kasia Howley: And anything on here that's new, that, apart from that one?	
P31	P31: Probably that the part of the scientific moment, the top one.	
P31	P31: I definitely wouldn't have known that.	C76 - New and thought provoking information
P31	Kasia Howley: The neuromuscular, yeah, and that's interesting because you said earlier about discomfort in this region.	
P31	P31: Especially because we got taught, yeah, massage it, but I'm like, I actually don't know what I'm massaging, why I'm... I just know that apparently massage helps it.	C112 - Following voice care practices without understanding
P31	Kasia Howley: Yes.	
P31	P31: So it's like actually learning that it's to do with like all the muscles and knowing what.	
P31	Kasia Howley: Yes.	
P31	P31: It does actually.	
P31	Kasia Howley: If you are just do it, it's not always.	
P31	P31: No because sometimes I'll be like massaging the wrong area and it's like yeah what's the point?	
P31	Kasia Howley: Yeah, yeah, yeah.	
P31	P31: Yeah, 100%.	
P31	P31: And also the sensory signals between the laryngeal muscles	
P31	P31: and brain become less accurate, I didn't know that.	
P31	Kasia Howley: And then in terms of the, like, the strategies, which, I mean, I haven't, the reason, I've not called each page, sort of, like, cause, strategy, etc	
P31	Kasia Howley: I think I don't know if that just, to me, feels a little bit too, prescriptive.	
P31	P31: Yeah, I feel like that might be like too..	
P31	Kasia Howley: Any of those strategies new to you?	
P31	P31: As in the symptom relief ones?	
P31	Kasia Howley: Either of them!	
P31	P31: Definitely vocal technique because like.	
P31	Kasia Howley: Hmm. Okay.	
P31	P31: Sometimes, I think that one...	
P31	Kasia Howley: Yep.	
P31	P31: Everyone talks about vocal technique and, like, we get taught about it and stuff, but it's like, oh, like, what is the correct technique with a lot of the things? Especially some teachers teach different techniques, and at [dance college] we have multiple teachers.	C113- Inconsistent vocal technique guidance within training
P31	P31: So then I'm getting taught different techniques along the way, and I'm like, oh, well, which one, like, which one helps, which one doesn't.	
P31	Kasia Howley: Would you link vocal technique to fatigue?	
P31	P31: No, I... normally I wouldn't.	C114 - Limited awareness of relationship between vocal technique and fatigue
P31	Kasia Howley: Yeah, so that's an intro.	
P31	P31: But they... but they do link.	C115 - Guide increases awareness of the relationships between technique and fatigue
P31	Kasia Howley: Yep.	
P31	P31: 100%.	
P31	Kasia Howley: And it's like dance in a way, like if you were using bad technique, you're probably going to get tired because you're not supporting yourself.	
P31	P31: Yeah, then you get injured.	
P31	Kasia Howley: It's in that future prevention bit	
P31	P31: Yeah, exactly	
P31	P31: And then the, the manual therapy as well.	
P31	Kasia Howley: Yeah, which is kind of back to what you were saying with this, and I suppose the point of that one is, maybe the bold of a trained professional bit?	
P31	P31: Yes.	
P31	Kasia Howley: next question would be, how do you think this could be beneficial in training or in the industry? Do you think it could be used?	
P31	P31: Yeah, I 100% think it'll be used, especially, like, learning about what it is. Yeah. I think that is such a, like.	
P31	Kasia Howley: Would you have found this beneficial, like, if it was given to you in training?	
P31	P31: Yeah, like, especially first year, like, if I got this in first year, like, from the start, all through my training, I'll understand what to prevent, what to do to prevent, and then what it actually is, because like I said, I actually don't have a full definition. I can do it throughout all of my training.	C116 - Suggestion that guide would be useful at the start of training to develop prevention
P31	Kasia Howley: Is interesting. And is there anything that you would change about it? Like, so open to like, even if it's like format, content, structure.	
P31	Kasia Howley: Anything that pops out to you.	
P31	P31: Honestly, from... I wouldn't, but that's because this works for me.	
P31	Kasia Howley: Yep.	
P31	P31: like, my way of learning is this, it's very... I like to, like, visually see it in different, like, layouts and stuff, so for me.	
P31	Kasia Howley: Do you think a digital format works, or would you prefer, like, a hard copy?	
P31	P31: I probably would prefer hard copy. Yeah. Mainly because then... That's just me, my opinion.	C117 - Preference for a hard copy alongside digital
P31	Kasia Howley: No, no, I, I agree. My always thing was.	
P31	Kasia Howley: With the day and age we're in now.	
P31	P31: Yes.	
P31	Kasia Howley: it's interesting to know if you think, like, your age group, your demographic would still read something like a leaflet.	
P31	P31: I probably would over digital, yeah.	
P31	Kasia Howley: That's really good to know.	
P31	Kasia Howley: Anything else to share on it? Anything else you want to say or add to it or anything?	

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P31	P31: But honestly, that, for me, is perfect, because that... for my learning, that's how I learn. I think it's... everything's so clear, it's not all so... because obviously, with the scientific side, you might... big words, and a lot of going on, but it actually... for me, I understand it, and it works.	C72
P31	Kasia Howley: Oh, perfect!	
P31	Kasia Howley: Thank you much.	
P31	P31: Thank you!	
P31	Kasia Howley: Thank you. I'll stop the recording now.	

P36-MD - Interview Coding

P36 - Interview

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
Musical Director Individual Interview P36	Kasia Howley: So, to start, could you just tell me a little bit about, how you work with professional voice users, in your day-to-day job?	
P36	P36: So I'm a musical director, and usually, like.	
P36	P36: ideally, I am in longer contracts. So, for example, like, I've done [ALW musical west end], [Movie musical London], [Popular UK tour]	
P36	P36: [off west end musical], my job is to	
P36	P36: take care of the music end of business, but because, obviously, singing is the music end of business, and, like.	
P36	P36: Generally speaking, I believe an MD and a cast should have quite a close relationship. Like I take quite a lot of care over, I'd be the first port of call and the first person that the cast would come to in terms of singing.	C153 - Musical director first port of call
P36	P36: And then, if they have any queries or problems or anything like that, they, generally speaking, have always come to me first, and then we figure out who they need to go to next.	
P36	Kasia Howley: Great.	
P36	Kasia Howley: And then kind of following straight on from that, what does vocal fatigue mean to you?	
P36	P36: Ehm,	
P36	P36: Lots of different things, but, like, generally speaking, to me, it... It's not... Working at its...	
P36	P36: Like, 100% easy capacity.	C154- Voice not working at full potential
P36	Kasia Howley: Yes.	
P36	P36: I think when you don't have vocal fatigue.	
P36	P36: You are feeling great, everything feels easy, this is breezy, I don't need to try that hard, except for the things that I'm always going to have to try out, and everything sits and feels where it should fit.	
P36	Kasia Howley: Mhm.	
P36	P36: And then when you have vocal fatigue, it can feel like different things, but generally speaking, it means that something is not... that feeling of everything is just easy and I can just sing is gone.	C32 - Too much vocal effort
P36	Kasia Howley: Yeah. And how would you say that you, sort of, what signs do you see or, hear? And that could be physical, it could be behaviour, it could be emotional, with your cast, if they're experiencing it?	
P36	P36: I have found really interestingly with younger cast, one of the first signs is I can hear them pushing. Yeah.	C155 - Audible signs of vocal effort
P36	P36: And I'm like, for me, I find this really interesting because I'm like, oh, wow, like you're tired. Why are you trying even more?	C156 - compensatory effort during vocal fatigue
P36	Kasia Howley: Yes.	
P36	P36: Not even giving your normal amount, you're giving more than that.	
P36	Kasia Howley: Yep.	
P36	P36: Clearly looks like a psychological thing of, like.	C157 - psychological drive to compensate for vocal fatigue
P36	Kasia Howley: Yeah.	
P36	P36: You must try harder, but they don't know where the harder is.	
P36	Kasia Howley: Yes.	
P36	P36: They could never match. They could only go above. And so like my first thing that I generally, especially with younger cast is that they just are pushing a lot. Yeah.	
P36	P36: people who have done a few more shows and have a bit more experience, they're, They'll actually come up to me, like, before a warm-up, and be like, just so you know.	C158 - Older/more experienced performers are better at advocating for themselves
P36	P36: XYZ. They'll be... they'll tell me I'm not gonna do an opt-up, or they'll be like, I'm gonna relax on the... on something, like, I'm feeling tired. Or they.	
P36	Kasia Howley: Yes.	
P36	P36: They could, honestly, like, depending on who they are, like, they'll all tell me, like, oh, you know, I just need to drink loads of water. I'm like, that's not going to do anything right now.	C159 - Misconceptions about immediate fatigue management
P36	Kasia Howley: Yep.	
P36	P36: Let's chat about that. Or I'll see them steaming on stage or like, it's really interesting. Like vocal warmup when you're in the room with them is a really good indicator of who's feeling what where.	C160 - Vocal warm is a great indicator for MD's to visually assess how performers are feeling
P36	Kasia Howley: Oh, I love that! So yeah, in Vocal Warm up, you can use that as a sort of chance to even, like you said then, visually see them doing things they maybe weren't doing before?	
P36	P36: Yeah, absolutely.	
P36	Kasia Howley: Yeah, that's good.	
P36	P36: Because you've got the people who clearly are like feeling in peak condition and they're like looking for the chats.	
P36	Kasia Howley: Okay.	
P36	P36: You've got the people who like are going around with their nebulizers, the people who are going above and like really diligently doing the warmup. So you're like, okay, you mightn't feel great, but you're like, you're not on the steamer, you're okay.	
P36	Kasia Howley: Yep.	
P36	P36: at... So it's, like, an interesting... way of seeing!	
P36	Kasia Howley: Yeah, that is really interesting, and you mentioned before, in terms of age, and with age, because obviously working professionally in shows, you'll have fresh graduates, to people that are really experienced. So, when you say the younger age, is that, like, young graduates, or are you talking younger as in children?	
P36	P36: No, I mean young graduates.	
P36	Kasia Howley: Yeah, young grads, okay.	
P36	Kasia Howley: Yeah, so do you see a big difference, sort of, in the, I suppose the way they respond to it and the way they communicate it between the young grads and the experienced performers?	
P36	P36: Huge.	
P36	Kasia Howley: Mmm.	
P36	P36: Huge, huge, huge. In so many ways. Like, the young grads are...	C64- Generational differences
P36	P36: And this is such a generalization, but like...	
P36	Kasia Howley: Okay.	
P36	P36: No, generalisations are made for reasons.	
P36	P36: I have found that the young grads, they are afraid.	
P36	P36: Of their voices not being.	
P36	P36: at peak performance. And not necessarily because they think that there's something wrong with them, but it's like, oh, if I can't sing really well, what if you take me off the show?	C64- Generational differences
P36	P36: Like, yeah.	

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P36	Kasia Howley: Okay.	
P36	P36: It's really bizarre. They just have...	
P36	P36: There's still such a warped view on vocal health.	C161 - Stigma around vocal health
P36	Kasia Howley: Yep.	
P36	P36: Like I've seen it so often. So like one, you've got the young grads who are terrified of telling you that they don't feel.	C162 - Fear of disclosing vocal fatigue
P36	P36: Like, vocally, fighting fit, and you're like.	
P36	P36: You'd totally tell me if you had a niggle in your knee	C84 - Normalising vocal health the same way as physical health
P36	Kasia Howley: Yep.	
P36	P36: Like it's the same thing. It's actually the same thing. Why? But there seems to be such a, God, I can't tell you because.	
P36	P36: Then, yeah, because if it, what it feels like when you talk to them is.	
P36	P36: They might tell you that they have a niggle in their knee	
P36	P36: And it's just a niggle, and it'll go away in a few days, and it's no problem	
P36	Kasia Howley: Yes.	
P36	P36: And it feels like if they tell you, I don't feel Great singing.	
P36	P36: They're like, oh, that means I have nodules and I can't sing for the next six months. And it's like, one, two, skip a few.	C163 - Catastrophising vocal fatigue symptoms
P36	P36: You, you, you just need a bit of sleep.	
P36	Kasia Howley: yeah	
P36	P36: You need to not go to the pub and shout at people in the pub.	
P36	P36: Because... go... by all means, actually, look, you can go to the pub, but don't be shouting at people. You would be a problem here. And it's like... it's wild that there's... there's just such a...	C24 - Recreational voice use
P36	P36: catastrophization of feeling drained.	
P36	Kasia Howley: Yes.	
P36	P36: It's so fine, because also you've got these kids who like the kids like fresh grads who.	
P36	P36: They have gone from, like, a normal amount of singing in their lives.	
P36	Kasia Howley: Yes.	
P36	P36: Like, hey, especially, especially at the beginning of shows when it's like.	
P36	Kasia Howley: Full on	
P36	P36: a week of music rehearsals, which is singing all day, every day, and they're trying to make a good first impression, because it's the first time that they're working, and it's the first time that they're seeing these people, so they're trying to sing out.	C164 - Transition from training into performance demands C165 - The need for validation and wanting to impress
P36	Kasia Howley: Yep.	
P36	P36: And then that week goes straight into rehearsal weeks, where they're singing loads, and they go straight into tech, go straight into... and it's like, by the time you've started, you're on the back end of all of this, and they're terrified of telling you.	
P36	P36: It's actually fine. Of course you're tired.	C123 - Vocal fatigue is a big part of performing
P36	P36: So there's that fear of it, and then there's also this.	
P36	P36: other side of it, where, like, and I have to say that	
P36	P36: by large, [west end show] was really good for this, but, like, I work at so many companies where, like, if you try and tell them...	
P36	P36: And it's not about having the on-site physio, it was just we had a really good relationship with the whole situation, where, like, I could request, or I could say, hey, I think this person needs some vocal massage in between shows today.	C166 - Supportive workplace culture for vocal health
P36	P36: No problem.	
P36	Kasia Howley: That's great	
P36	P36: this person actually does... is just in for, like, a check-up. We can move that to during the show, or whatever. No problem, we'll prioritise that. Or... we had it... we had quite a few cases.	
P36	P36: For quite a few different reasons, and not all necessarily show-related, they were, like, pre-show-related, but we actually had quite a few people end up going to see specialists, and having scopes done, and, like.	C166 - Supportive workplace culture for vocal health
P36	Kasia Howley: It's such a physical show as well, isn't it? So that's just a whole other realm too, I'd imagine.	
P36	P36: Right.	
P36	P36: I...	
P36	P36: So I did a year of it as an assistant, and then when I took over as MD, I learned how to skate.	
P36	P36: Because I was like, I want to.	
P36	Kasia Howley: Oh, wow	
P36	P36: I wanna know what I'm asking of you.	C167 - Experiential understanding of performance demands
P36	Kasia Howley: I love that. That's amazing.	
P36	P36: And it blew my mind.	
P36	Kasia Howley: Yeah, I can't imagine.	
P36	P36: Like...	
P36	P36: Why? Why? Why are we even talking about the fact that you can sing normally here? Because you can never release your stomach.	C168 - effect of movement on singing
P36	Kasia Howley: Yeah	
P36	P36: You can never release because as soon as you don't engage your core.	
P36	P36: You are rolling forwards or backwards when you're meant to be stationary, so you can never do that.	
P36	P36: I was like, this is wild! I was like... and it was so interesting, because it was, like, things like...	
P36	P36: You know, during the rehearsal period, there was this whole, it's so, like, so, but there was like this whole.	
P36	Kasia Howley: Right!	
P36	P36: some people were, like, going around doing a really fast bit, and some people were doing, like, turns in the spot, and we were like, oh, well, you know, guys, the people who are going around the track really fast, you know, that's hard. So, actually, the people doing the spins need to... need to be doing most of the singing, lifting here.	
P36	P36: And then I learned how to skate, and I was like, that's so dumb! Because I now know, when you spin, you have to, like...	
P36	P36: Tighten everything!	
P36	Kasia Howley: I can imagine. Yeah.	

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P36	P36: Your whole body tightens up. So I was like, that's such a shit place to be singing from. You can't be doing that.	
P36	P36: But it was, like, so eye-opening that it was like, well, obviously, actually, once you've done it, you realize this, but actually.	
P36	Kasia Howley: Yeah, cause that's what I was gonna say, you obviously took the amazing initiative to go and do that, which I don't think a lot, I mean, you can't generalise, but I don't know if a lot of MDs would do that?	
P36	P36: No, but also a lot of MDs will be like, well, that might be a bit dumb. What if I break my wrist?	
P36	Kasia Howley: Yeah, but, you know, I think it's amazing you did that, and I just wonder, with this process, and with the...	
P36	Kasia Howley: how they've got to manage their voice and the demand being so crazy. Do they get a talk about that before they begin?	
P36	Kasia Howley: Or is that something that you've, everyone kind of develops as the show goes on?	
P36	P36: I'm I would say different strokes, different folks. I know that I personally, as an MD.	
P36	Kasia Howley: Yes.	
P36	P36: I always like to give a chat before I start any rehearsal process. And then, especially depending on the season, there'll be, like, a season special.	C169 - Proactive discussions around vocal health
P36	Kasia Howley: Yes.	
P36	P36: Or if I'm in a process that changes seasons, like I always like to like sit them down.	
P36	Kasia Howley: Amazing.	
P36	P36: It's being like, hey, like.	
P36	P36: Like, going into winter, it's.	
P36	Kasia Howley: Yep.	
P36	P36: So please, please, please wear your scarves. Like also look so many things, but like.	C170 - Seasonal effects on the voice
P36	P36: I think this is from my perspective of I became an MD from working with singers.	
P36	Kasia Howley: Yes.	
P36	P36: I didn't become an MD from playing the piano.	
P36	P36: Whereas I think so many MDs come into the industry the other way around.	
P36	Kasia Howley: Yes.	
P36	P36: Like, I think that's actually more normal, so they don't know as much about singing, and that's totally fine. Like, there's a part of me that's like, it's an awful lot for an MD to know if they're also expected to all be vocal coaches.	C171 - Variation in MD vocal health knowledge
P36	Kasia Howley: Yeah of course	
P36	P36: And that's how I am a vocal coach, but like I, because I came in from it, from the singing, like from being around singers and working with singers.	
P36	Kasia Howley: Yes.	
P36	P36: Stuff like I definitely have a very big.	
P36	P36: I have a much broader knowledge of it than a lot of MD's I know.	
P36	00:12:00.890 --> 00:12:04.359	
P36	Kasia Howley: And I suppose the, the interesting point of it is exactly like you just said.	
P36	Kasia Howley: It's not their expectation, I suppose,	
P36	Kasia Howley: But I think there has to be a level, so what would you say would be the sort of minimum level that there should be?	
P36	Kasia Howley: Guiding vocally or, I suppose, increasing their knowledge on?	
P36	P36: I, I do, I think it'd be amazing if...	
P36	P36: If every MD at some point in their life even did like one of those like vocal first aid courses.	C172 - Recommendations for MD's engage in extra knowledge development
P36	Kasia Howley: Yep.	
P36	P36: Like, bare minimum, I guess.	
P36	Kasia Howley: Yes.	
P36	P36: Just as a, like a, oh, I can do this at home on my laptop and do my own time. And it just makes me somewhat aware of it.	
P36	Kasia Howley: Yep.	
P36	P36: I... Like, if you could, like, turn back the wheel of time for some people, like...	
P36	P36: like, if MDs could actually work, like.	
P36	P36: Two... the two things that I found most...	
P36	P36: That I learned the most from, in my experience, is one, I played for singing lessons, really.	
P36	Kasia Howley: Ah okay.	
P36	P36: For quite a long time, but I, with different teachers.	
P36	P36: And like, I spent, like, this is so niche because also I'm like, who else gets to do this?	
P36	Kasia Howley: Yeah, but...	
P36	P36: But at one point I worked in an opera studio in Germany where I played for singing lessons and there was a new teacher every three days.	
P36	P36: Because, like, in this international opera studio, so they just had these people, and so I just sat there, and I just played for every... and I did this for, like, six weeks, for this one particular thing, and so, like, for six weeks, every three days, I had a new singer... singing teacher come in, and, like...	
P36	P36: kind of that thing that I'm such a firm believer in, is that, like.	
P36	P36: Because I also have had lots of teachers.	
P36	Kasia Howley: Yeah	
P36	P36: And I know that not everyone's a good teacher. And that's no problem. And actually, sometimes all I learn from teachers is that's not the way you teach that. Or it turns out I actually disagree with that point of view. It's actually sometimes really beneficial to...	
P36	Kasia Howley: Yep.	
P36	P36: to be, like, validated in what your own opinion is, and if that's what you take away from a teacher, that's actually no problem. Yeah. I learned so much.	C173 - Benefits of MD's watching sessions with vocal coaches
P36	P36: By just sitting there and listening to people being taught how to sing.	
P36	Kasia Howley: Yes.	
P36	P36: Especially... Sorry, but like, because I think this is the pitfall for a lot of MDs.	
P36	Kasia Howley: Yes.	
P36	P36: who don't know about singing.	
P36	P36: Primarily, MDs have come from, sorry, I'm pointing to the piano over there.	
P36	Kasia Howley: Got it.	
P36	P36: We come from playing the piano.	

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P36	P36: Like, yeah, I could get artsy, and I could get a bit, like, twee about how I talk about piano, but ultimately, at the end of the day, when I was taught the piano, I was sat down, and you pressed that button, and it made that noise.	C174 - instrumental training effects perception of singing
P36	Kasia Howley: Yep.	
P36	P36: And it's all in front of you, it's logical, it's very...	
P36	P36: It makes so much sense, and it's so visual. It's in front of you.	
P36	Kasia Howley: Yep.	
P36	P36: And I remember the first time that I sat in a singing lesson, I was like, Like.	
P36	P36: How do you sing something you can't see, touch, feel? Like, this is all...	
P36	Kasia Howley: Yes.	
P36	P36: the two things that I have learned that, like, are the biggest differences in how you approach talking about someone playing the piano and someone who's singing is, one.	
P36	P36: And this I think is like, these are the two big pitfalls.	
P36	P36: One, I'm not my instrument. You can tell me that I didn't do something or something didn't sound well, and that's fine, because I'm not that piano.	C174 - instrumental training effects perception of singing
P36	Kasia Howley: Yes.	
P36	P36: And if it didn't sound right, I can blame, the piano if I wanted	
P36	Kasia Howley: Yes.	
P36	P36: But I could blame the pedal, I could blame the keys. It's fine. When you talk about someone singing.	
P36	P36: It's their identity. It is who they are.	C175 - Voice as identity
P36	P36: So you have to use an entire different language and an entire different set of vocabulary, because...	C176 - importance of sensitive communication around the voice
P36	P36: The thing is, if you start talking about their singing without realizing that it's them and their identity.	
P36	P36: they get upset, and that's... that's totally understandable, but also, now you're asking them to do something, but they're upset, and obviously, if your emotions are in your throat, you now are gonna not sing well again. So, like.	C19 - Emotional impact on voice
P36	Kasia Howley: That's a really interesting point. So it's that level of communication because it is the voice. And again, if we link it back to the fatigue element, if they've had a bad experience where it isn't delivered in the right way, they're not going to want to share again in the future.	
P36	P36: No.	
P36	Kasia Howley: Mmm.	
P36	P36: And I think because it's.	
P36	P36: For so many people, it's such a... as soon as something happens, their voice. It's not just, oh, when I do this, splits my knee, kind of. It's, oh, when I talk, when I do anything, when I do everything.	
P36	Kasia Howley: Yep.	
P36	P36: And it's them.	
P36	Kasia Howley: Yep.	
P36	P36: It's not detached, it is them.	
P36	P36: So when like singers talk about vocal fatigue, you're like, okay.	
P36	P36: Odds are there's other things going on here.	
P36	P36: So, I just... Like, you know what?	
P36	P36: It is definitely that you have gone from living a normal life to living a show schedule.	
P36	Kasia Howley: Yes.	
P36	P36: You've got it. I'm requiring quite a lot from you eight times a week.	
P36	Kasia Howley: Yeah	
P36	P36: So yes, you are vocally fatigued, but this also means that you were probably a bit anxious.	
P36	Kasia Howley: Yep.	
P36	P36: Bit overwhelmed.	
P36	Kasia Howley: And you've kind of, you've kind of gone on to it, but like, in terms of what you feel like does trigger it for them, I know you mentioned, obviously, the workload, the demand, and then the pub, which is personal life. Are there any other things you think can, cause vocal fatigue?	
P36	P36: [off west end physical theatre show] was really interesting.	
P36	Kasia Howley: Yeah, yeah.	
P36	P36: It was definitely one that I...	
P36	P36: Like vocal health became like quite an important thing because there's actually so many elements of it. Like normal shows, it's just the normal things that you're looking out for.	
P36	P36: It was the skating. It was the, because it was the costumes. Those costumes weigh 15 to 25 kilograms.	C177 - Costumes impacting vocal performance and potentially fatigue
P36	P36: So you're carrying that on your shoulders. So, like, a lot of people were like, this...	
P36	P36: Which meant that all of this was tight, so it was like, okay, okay, great!	
P36	P36: Bad start here. And we're holding 25 kgs up with our shoulders while we're skating.	
P36	P36: because their costumes are this this list like I'm just gonna go on a list.	
P36	Kasia Howley: Yes.	
P36	P36: Because their costumes were primarily made of plastic, it was really fucking hot, which meant that they had to have quite a lot of aircon units backstage. So anytime they weren't on stage, they were in this, like...	C178 - Environmental conditions contributing to vocal fatigue
P36	P36: Arctic gale of dry wind at them.	
P36	Kasia Howley: Yes. Right.	
P36	P36: That's another one.	
P36	P36: one, it's... a lot of those female songs were not written by a woman, so... written in... everything's sat between an A and a C, and you're like...	C39 - Stylistic vocal demands
P36	P36: Great. I actually, everybody loves actually singing bees all the time. They're like, they're really great, really great.	
P36	P36: Yeah, I love that most of the song sits between that Bb and B the whole time.	
P36	P36: Perfect.	
P36	P36: And then...	
P36	P36: the in ears, and I... it was a really good training for me, especially because I feel like more and more shows are turning to in ears for the cast to be using.	C179 - Use of in ears within musical theatre
P36	Kasia Howley: Yep.	
P36	P36: And they, I... the most interesting experience with one of the cast members in particular	

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P36	P36: I couldn't figure out what was what was happening and it was getting.	
P36	P36: Really, really bad. And then one day, she just happened to mention.	
P36	P36: And it was because she, like.	
P36	P36: Beautiful performer, stunning voice, but like.	
P36	P36: it wasn't translating as soon as she went on stage. I'm like.	
P36	P36: We did things like on the skates. We did it. We took all the individual elements and we paired them up and then we'd add two or three of them together.	
P36	Kasia Howley: Yes.	
P36	P36: And then as soon as she was on stage in front of people, it all changed. I was like.	
P36	Kasia Howley: Yes.	
P36	P36: There was one day she mentioned, having headaches, and I think	
P36	P36: So I was like, hey, so do you mind if I do a show watch? And so it was really cool. Everybody had their own personal mix.	
P36	Kasia Howley: Wow, that's great	
P36	P36: Really great.	
P36	P36: In theory.	
P36	Kasia Howley: Mmm.	
P36	P36: Everybody, their own personal mix. And there was a sound engineer and there was a sound desk.	
P36	P36: for their mixes.	
P36	P36: So at any point in the show, you could say, hey, could I have 2dB less of the rhythm section? Could I have 2dB more of the ensemble? You could ask whatever. Can I have a bit more reverb on myself?	
P36	Kasia Howley: Yep.	
P36	P36: In theory, This is excellent.	
P36	Kasia Howley: Yes?	
P36	P36: Until you realize.	
P36	P36: That actually the little crash course we gave on why this is, this is kind of what, and like the like two hours we had of like using our inners for the first time with like nothing else just to kind of get used to things and like seeing what it was like to add things.	C180 - Insufficient training on in ear monitor use
P36	P36: Not enough for a lot of people.	
P36	Kasia Howley: No.	
P36	P36: A lot of people didn't know what to ask for. And so, and like, basically I asked this, this person, I was like, Hey, do you mind? I was like, I'm going to do a show watch. Can I listen to the show through your mix?	
P36	P36: I was like, if I find it necessary, is it okay with you if I change things? Yeah. I know this is a big trust thing, because you're the one on stage, on skates.	
P36	P36: And I'm going to be changing what you're hearing, but is that okay with you? I was like, at any point, if it's too much, you just tell me to stop. But...	
P36	P36: she was well up for it. She was like, great, yeah, this sounds great. And I was like, I'm not going to change anything until you start singing, though. So, like, at least that.	
P36	P36: She actually didn't... she doesn't sing for the first 20 minutes of the show, and I actually didn't get past the first minute.	
P36	P36: I was so overwhelmed when this thing started. As in, like, when I tell you, I had the same innies as here, I had the same volume setting, I had the same everything. I was listening to the show like I was.	C181 - Effect of poor in ear monitor balance on performance
P36	P36: And I didn't make it a minute in. It started and I was instantly overwhelmed.	
P36	P36: like it was just so much so much it was so much but I could understand instantly I was like	
P36	P36: Because it made no sense either. It was like so loud, but it was just noise. And I was like, yeah, like basically I could tell that she had asked for something that didn't fix it. I'll ask for something else that didn't fix it.	
P36	P36: She just kept putting shit in the bowl and hoping that it would end up okay, but actually, it was... she just definitely kept making it worse and worse and worse and worse, and...	
P36	P36: Got to a point where she was like, well I'm just gonna stop it.	
P36	P36: And stopped at this point where.	
P36	Kasia Howley: Gosh.	
P36	Kasia Howley: It's such an interesting, observation and something that is definitely not spoken about because I guess it's happening and I imagine as well a lot of rock shows or I've had other conversations,	
P36	Kasia Howley: And...	
P36	Kasia Howley: it's... there's been suggestions that it could... it should happen in, you know, more full-scale rock musicals and things too, but I think if they are just given them, and given the crash course, yeah, it's...	
P36	Kasia Howley: It's that, have they understood it?	
P36	P36: The thing that I. So sorry to come back to you.	
P36	P36: Everything that I, so I,	
P36	P36: I learned about it because of this. I did not know before this incident. So, like.	
P36	P36: Basically it got to a point where everything was really loud, but like all the wrong things were loud. So like she had the guitars way louder than the rest of the band, but the guitars were the things that were doubling her melody.	C181 - Effect of poor in ear monitor balance on performance
P36	Kasia Howley: yeah.	
P36	P36: She had to shout over them. But then because she was shouting over them, so what? This is really cool. And I didn't know about this before.	
P36	P36: In your brain, if you're listening on in-ears, I assume actually not just on in-ears, in life.	
P36	P36: There is a volume.	
P36	P36: At which your brain switches.	
P36	Kasia Howley: Mmm.	
P36	P36: So, like, if you're too quiet, you'll speak louder.	
P36	Kasia Howley: Yes.	
P36	P36: Like when you've got noise cancellation headphones on. However, there is a point at which if you are too loud in your own ears, your brain will also try and be louder than that because if you're hearing yourself really loudly, your brain tries to compete with it.	C181 - Effect of poor in ear monitor balance on performance
P36	P36: And so, like, I thought, I went into this thinking she's really quiet in her mix.	
P36	P36: So she's trying to be louder to...	
P36	Kasia Howley: Yep.	
P36	P36: To hear yourself.	
P36	P36: And when I tell you, I... I... I... With Bamboozled.	

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P36	P36: when she did start singing, because I was like, this is the loudest thing I've ever heard. I thought... I thought the rest of what I was hearing was loud, and as soon as she started singing, I was like, this is insane. If I heard my voice that loudly in my head, I think I would go nuts.	
P36	P36: Like, it was... and so I ended up going on, like, a little rabbit hole of research on this, and it is a thing. Psychologically, in your brain, if you get to a certain level of putting your own voice into your ears, your brain gets confused, and it... you have to speak louder and louder. So, she had reached this point.	
P36	P36: Where she was so	
P36	P36: Her own voice was so loud in her ears that she had to shout to get over it, which made it louder. And so she had like entered this spiral that I don't even know existed in your brain. So I was like, I assumed.	C181 - Effect of poor in ear monitor balance on performance
P36	Kasia Howley: Yeah.	
P36	P36: If I heard myself that loudly in my ears, then I would try and talk a bit quieter.	
P36	Kasia Howley: Yeah.	
P36	P36: to try and not give myself this headache. Like when I tell you this is a headache inducing volumes and	
P36	P36: It it was.	
P36	P36: It was such an eye-opening experience.	
P36	Kasia Howley: So what do you think with shows that are incorporating in-ears into their process would be the best way to manage them?	
P36	Kasia Howley: Would it be someone, like, being able to do a show watch in hearing what they hear and trying to manage it with them? Because I guess it's quite a difficult thing to do, isn't it, managing that?	
P36	P36: Yeah, I, for me, definitely that was the, that was the biggest thing that made a difference. Yeah. Then from that point on.	
P36	P36: There was a few other people that I was like.	
P36	P36: Let me. Listen to the show with you. And like, I then would only, I kind of like picked a few people, but I didn't listen to the whole show with them so that I could try and maximize the time.	
P36	P36: But I think... In my experience, I am now doing.	
P36	P36: Another show that's using in-ears.	
P36	P36: And.	
P36	P36: And again.	
P36	P36: I actually don't think this one got any briefing. I think they just got given them. They were just put on them.	C180 - Insufficient training on in ear monitor use
P36	P36: And I think...	
P36	P36: the first thing that should happen is... if... and, like, this would be, like, my... this is a small step, it would take 5 minutes, and everybody... everybody should do this, is that there could be a general mix made.	
P36	Kasia Howley: Yep.	
P36	P36: But it needs to be listened to by...	
P36	Kasia Howley: Yes.	
P36	P36: The sound engineer or the MD. Somebody needs to sit and listen to a mix.	
P36	P36: that is the general mix given out to everybody, because I don't think they listen to it through in-ears.	
P36	Kasia Howley: Yep.	
P36	P36: Like even as musicians, like we have our little, we have a little mixer beside us. We can change it all the time. And like the show that I'm doing at the moment,	
P36	Kasia Howley: Oh, the immersive?	
P36	Kasia Howley: Which will be crazy.	
P36	P36: Nuts and like.	
P36	P36: But they treat us with such a different level than they treat cats, as in, like, hey guys, we're just gonna test the click, so if you wanna take your in-ears out, and we'll just see how light the click is.	C182 - Difference of treatment between musicians and performers
P36	P36: Do you think they ever say that to class members?	
P36	P36: No, they don't.	
P36	P36: And I'm like... Why do you value my ears more than their ears?	
P36	P36: Because you value my ears, but you haven't thought about valuing their voice, that they're singing against what they're hearing.	
P36	Kasia Howley: And it'll go right back to that grad perspective as well, I think, of, if someone is more experienced, they might come and go, excuse me, can we amend? But there'll be a lot, probably, maybe the younger ones, that just go, well, this is the... this is... okay.	
P36	Kasia Howley: And maybe just deal, which... Yeah, it's a really, really, really interesting perspective.	
P36	P36: 'Cause if it is your...	
P36	P36: Look, there were things that I did on my first professional job that I now would be like, oh, now if I could go back in time.	
P36	P36: I would, I'd be like, this, that was unacceptable.	
P36	Kasia Howley: No.	
P36	P36: And I know in my heart that I wouldn't be being a diva. I would just be setting a very minimum boundary and standard for myself.	
P36	Kasia Howley: 100%, of course.	
P36	P36: But as a young person or as a fresh grad, you don't know what those boundaries are.	C64- Generational differences
P36	Kasia Howley: No.	
P36	P36: Look, let's be real, no one's offering them to you	
P36	P36: Because it suits them not to.	
P36	Kasia Howley: True	
P36	P36: And it's not, and to be honest, like playing devil's advocate, but like.	
P36	P36: one, it suits... sometimes it's the... it suits them not to offer you the boundaries, but actually also, like, I know that in the case for...the show I'm doing	
P36	Kasia Howley: Yep.	
P36	P36: This is the second time this production has run.	
P36	Kasia Howley: Yep.	
P36	P36: More than 50% of the cast are the same.	
P36	Kasia Howley: Yep.	
P36	P36: I'm the only new member in the band.	
P36	P36: Stage management team are the same.	
P36	P36: So from the views of the people running the room, it's all the same people.	
P36	Kasia Howley: Yeah, of course.	
P36	P36: But they, like, because when you're under time pressure.	C45 - Pressure of timescales

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P36	P36: You forget about the 10, 15 new people. Yeah. This is their first time doing it. For sure.	
P36	P36: That's fine. Look, you're under savage time pressure. If everyone's new, you've put that into your schedule. Because if everybody's new and this is the first time, it's in your schedule to talk about it. It's in your, guys, and we have to have 10 minutes on the top of this to talk about in ear's. Because everybody's first time in them.	
P36	P36: It goes in the schedule.	
P36	Kasia Howley: That's a really interesting, interesting point as well of like revivals and, and fatigue as well because yeah, it is that, that some people have muscularly,	
P36	Kasia Howley: embodied that. And then if it is that re-go, and it's like, oh, you can jump in, that's gonna be such a different rehearsal process for those new people.	
P36	Kasia Howley: Probably more condensed than, than it would have been if it, like you said, it was a full new cast.	
P36	Kasia Howley: It's all... all very interesting. And the last little thing on this is, you've kind of touched on it quite a bit, but do you feel like performers are...	
P36	Kasia Howley: Preventing vocal fatigue or dealing with it when it's occurred?	
P36	P36: Oh.	
P36	P36: I would... I would put this in two categories.	
P36	Kasia Howley: Yep.	
P36	P36: Three.	
P36	Kasia Howley: Go for it.	
P36	P36: I would say there's a vast majority, let's say 50% of people deal with it when it happens.	C60 - Reactive management of vocal fatigue
P36	P36: From the people that then end up with a problem or they're off for a week or they they're put on vocal rest or whatever.	
P36	P36: You've got that section of people who then take it seriously.	
P36	Kasia Howley: Yep.	
P36	P36: And do it preventatively, but only half of them.	
P36	P36: Really, to be honest.	
P36	P36: And then you've got...	
P36	P36: You do have. So I would say most people don't do preventatively unless something has happened to them.	C183 - Prevention prioritised after a problem has occurred
P36	Kasia Howley: That's a really good point.	
P36	P36: Except for the little niche group and you find them. The people who had one scary or one inspiring.	
P36	P36: Visit from someone or a workshop and they learned something amazing or they learned that it wasn't scary, but you've got that, like, there are little pockets of people who had an inspiring workshop and realised it's actually not that big a deal.	
P36	Kasia Howley: No.	
P36	P36: And took it with them.	
P36	Kasia Howley: Yep.	
P36	Kasia Howley: That's great, and do you recommend strategies to any of them about prevention and management?	
P36	P36: I mean, I definitely keep quite an open dialogue and I would always give a little chat before I start. And I like try and make it really simple.	
P36	P36: Always warm up, warm down.	
P36	P36: Hydrating.	
P36	P36: Does not mean drinking a litre of water before a show.	
P36	P36: And I always go back and I'm telling them, being like, your vocal cords are, like, this teeny tiny, like, your body doesn't care about them. You care about them, but that doesn't mean your body does. So it'll go big to small. They're the last thing. So you need to be hydrating. And, like, I'll always try and give them that.	
P36	Kasia Howley: Yep.	
P36	P36: And.	
P36	P36: And generally speaking, I... I always...	
P36	P36: I always, like, start rehearsal processes, telling them, being like, I'm... we're gonna rehearse things, we're gonna repeat things	
P36	P36: I suppose this is more for rehearsals and.	
P36	Kasia Howley: Yeah, no	
P36	P36: I'd be... I will always tell them, be like, I will tell you.	
P36	P36: When I'm gonna say, right, we're gonna stand up and sing this	
P36	P36: Great. And at that point, I need you to sing, because I need you to know what it feels like, but up until that point, I just need you to be pitching notes.	C184 - Reducing unnecessary vocal load within rehearsals
P36	Kasia Howley: Yep, yep.	
P36	P36: Because you can't be singing for eight hours today at full	
P36	Kasia Howley: That's great.	
P36	P36: So unnecessary. And like...	
P36	Kasia Howley: And they'll appreciate that guidance	
P36	P36: Yeah.	
P36	Kasia Howley: Yeah. No, that's brilliant.	
P36	P36: Like, it's because lots of people learn this and know this later on.	
P36	Kasia Howley: Yep.	
P36	Kasia Howley: But is it too late?	
P36	P36: Is it too late?	
P36	Kasia Howley: And then for the last five minutes, I sent you this guide, so I'll put it up on the screen as well, because I know everyone is super busy, so I'll bring it up and we can have a look here as well. And it is something that I created in my last module	
P36	Kasia Howley: All research based, so on the literature and evidence that's currently out there, also cognitive learning, how people learn, how people visualise things.	
P36	Kasia Howley: But it's still very much in refinement. So I'd just love, your perspective on it, any thoughts you have, anything it highlighted?	
P36	P36: I know, I feel like this might be unhelpful. I know you're probably looking for people to critique it.	
P36	P36: But me personally, I found this really excellent to look at.	
P36	Kasia Howley: Oh, amazing.	
P36	P36: I find, I'm one of those people, I find visual things, if there's loads written on it, I'm like, I can't read that.	
P36	P36: I actually found this.	
P36	P36: A very manageable amount of writing.	C185 - Manageable amount of content

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P36	P36: But then what was really interesting was, because I did read the whole thing.	
P36	Kasia Howley: Yeah!	
P36	P36: It was really interesting that I was like, it was, because I like, I can't even read bank statements. Like I.	
P36	P36: If an appointment letter comes through the post, I have to give it to somebody to be like, can you please read this?	
P36	P36: So for me to not be overwhelmed by this.	C186 - Cognitive overload has been reduced through the design
P36	P36: Was like, wow.	
P36	P36: But it was so much information on it.	C72 - Clear and accessible design
P36	P36: I was like, how did it have all the information?	
P36	P36: Without looking like it was going to have that much information.	
P36	Kasia Howley: That fine line. Yeah.	
P36	P36: which I found really and so like it was particularly the other page the other.	
P36	Kasia Howley: Yeah, this bit, this bit. [side 2]	
P36	P36: Yeah!	
P36	P36: That's because it was a particularly a scientific moment section that I was like, oh wow, like this actually has.	C79 - Balancing scientific detail with accessibility
P36	P36: You've really managed to condense such large...	
P36	P36: Concepts.	
P36	Kasia Howley: That's so great that you think that!	
P36	P36: Yeah, and like, honestly, like, I was so impressed with	
P36	P36: Like, this bit, because it's like	
P36	P36: I'm like, I'm scared of the big words. I also know that other people are scared of the big words. And I'm like, what does it feel like?	
P36	Kasia Howley: So true	
P36	P36: I don't remember the words, but I remember what it looks like and I can tell you what it is.	
P36	P36: but what I found amazing about this is like, there's the big sciencey word.	
P36	P36: This is what's happening, but this is how it feels.	
P36	P36: And I was like, yes, because actually.	
P36	P36: I'm a... This is what it feels like, person.	
P36	Kasia Howley: Yep	
P36	P36: When it comes to, like, anything vocal, because I'm like, that	
P36	P36: That's how I've always viewed it, and that's how I learned it, because you can't see it, you.	
P36	Kasia Howley: Exactly, yeah.	
P36	P36: This is what it feels like.	
P36	P36: So it was amazing, because it was like, actually, this is what pamphlets need to do. They cater to everybody.	
P36	Kasia Howley: That's great. Yeah, I'm really glad you said that.	
P36	P36: No, really good because I was also like.	
P36	P36: Found it wild that I'm.	
P36	P36: In such a... such a little amount of writing.	
P36	Kasia Howley: Yes.	
P36	P36: Is	
P36	P36: Actually, what I would consider years of information.	
P36	Kasia Howley: Yeah.	
P36	P36: This is what most people learn in years.	
P36	Kasia Howley: It's been a long time. Thank you!	
P36	P36: A huge amount of information!	
P36	Kasia Howley: Yeah, I think it's on us or me that, I need to spend years learning, and then to give it to people in an accessible quick format	
P36	P36: That's the beauty of, like.	
P36	P36: an excellent teacher? Or, like, you know when someone's like, well, that person's a genius	
P36	P36: They've spent years figuring out how to make something seem simple to somebody else.	
P36	Kasia Howley: Yeah, yeah.	
P36	P36: That's actually, that's the point of it.	
P36	Kasia Howley: So do you feel like it could be beneficial in the industry, something like this?	
P36	P36: Mmm!	
P36	P36: This is a pamphlet, yeah.	
P36	Kasia Howley: Great. That's great.	
P36	P36: This would be the kind of thing now, like where, so we, we had a neuro tour.	
P36	Kasia Howley: Yep.	
P36	P36: physio company that we had and this kind of thing that I'd be like hey lads.	
P36	P36: When someone comes for a vocal massage. You can hand them one of these	
P36	Kasia Howley: Yep.	
P36	Kasia Howley: Just to give it out to people.	
P36	P36: Yeah, no class.	
P36	Kasia Howley: Oh, that's amazing. Anything else to add before I press stop on the record?	
P36	P36: I I don't think so.	
P36	Kasia Howley: Amazing.	
P36	Kasia Howley: Well, I'll stop recording!	

P48-MP - Interview Coding

P48 Interview

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
Music Producer Interview P48	Kasia Howley: The interview is semi structured. So I've got a set of questions, but it's all about your perceptions and your perspective. So we can kind of go off piece a little bit, wherever you feel you'd like to go. They're there as a kind of a baseline for you to then share however much or however little you'd like. And you can of course decline to answer anything as well and say to	
P48	Kasia Howley: Move on, and we absolutely will.	
P48	P48: Okay.	
P48	Kasia Howley: So could you just tell me a little bit about yourself, what you do, and how you work with professional voice users in your day-to-day?	
P48	P48: Yeah, of course. So I am a music producer based in Nashville most of the year.	
P48	P48: I work with primarily.	
P48	P48: Country artists, none of that's particularly relevant, but vocalists, day-to-day, I mean, probably the most contact time I have with people is pretty much in vocal sessions, and that will normally take place at my homes space	
P48	P48: On the basis of it's a nice relaxed space and that sort of thing. And that's all played into the vocal, the vocal world. But that's my, my primary,	
P48	P48: contact with vocalists is that is in the studio tracking final vocals. And I do do a fair amount of also remote stuff. So it will be guiding vocalists, either that might be that I sort of, I'm suggesting ways to refine their performances based on what I'm hearing. It won't be like direct one-to-one sort of.	C244 - Producer role in shaping vocalist performances
P48	P48: real time. It's not sort of over Zoom and stuff, and if people do do that, I don't do that generally, but I will kind of take	
P48	P48: A performance and suggest, hey, maybe we can refine this and, and a lot of that kind of, if it does come to fatigue stuff, it's often just me reacting to hearing that.	
P48	Kasia Howley: Yes.	
P48	P48: From a distance or, you know, in the room, obviously that's a different thing.	
P48	Kasia Howley: Yeah, so I guess that kind of leads into, when you do hear the term vocal fatigue, what does it mean to you?	
P48	P48: I think I, I often associate vocal fatigue, obviously there's a technical side of it and the element of it that I think is inherent in the	
P48	P48: You know, the, the physiology of it, how it physically is,	
P48	P48: A bodily, almost like an athletic element, I can consider it a lot of like sport, kind of like it's the muscle, the training side of it, but I also do consider the kind of fatigue as like a significantly mental factor in terms of people also not understanding their own voice a lot of the time, and that's like, that's a lot of it, is how much.	C221 - Voice compared to an athletic instrument C188 - Comparison of vocal fatigue to muscular fatigue/fitness
P48	P48: Training have you put in basically and then how much of it is also.	
P48	P48: Then what's the emotional reaction to that? I think that's the big thing for me as well.	C245 - Vocal fatigue significantly mental factor
P48	Kasia Howley: Which, goes on to the next question, how would you see that in a room with someone you're working with? Are there any particular signs that would... would jump out to you?	
P48	P48: I mean, you honestly, like, most of the time you see it on a human level and a physical level first, to be honest with you. It's normally... I mean...	C95 - Vocal fatigue causing physical tension
P48	P48: I was at Wimbledon the other day and it's that same thing as when someone's not quite performing and you can see it in the body language, like a lot of the time it's that, followed by perhaps undesirable things in the vocal performance that maybe, I will, you know, for example, there was a	C246 - Vocal fatigue reflected in physicality
P48	P48: A client I was working with in Australia, I think I mentioned the other day on something, I don't know if I did, but she has been moving and doing lots of things at the minute and she sent me these vocal takes and I could tell compared to what I've heard from the last three tracks we've been working on, this one track had a little bit of sort of, sort of like.	C155 - Audible signs of vocal fatigue
P48	P48: Vocal fry distortion that wasn't quite what we would probably, I'd typically hear from her. And I think the overall emotion and reaction to the performance didn't feel like her. And I think that was sort of a sign of both physical fatigue.	
P48	P48: Mental fatigue and then it spilling over into the vocal performance rather than necessarily, I think she had been singing a lot, she had that sound of, you know, when the, you know, when it starts to, yeah, so, so I think that's kind of, that's kind of my impression.	C245 - Vocal fatigue significantly mental factor C246 - Vocal fatigue reflected in physicality
P48	Kasia Howley: with singers in the recording studio, or wherever you are. Do you feel like, with vocal fatigue, it is something that you recognise at the start of a session, and it will be disclosed? Or is it something that you feel like becomes apparent?	
P48	Kasia Howley: when it's arisen.	
P48	P48: I think it's...	
P48	P48: Oh, sorry. For me, a lot of the time, I think it's more of a... once they've warmed up, once you've got to that point, I think that's the other thing. It depends if someone comes in warm or not. If someone comes in warm.	C247 - Impact of preparation before a session on vocal fatigue
P48	P48: you can quite quickly tell. But a number of people, obviously, they don't want to overwork it too hard before they get there. I'd rather people came in underworked than overworked. I have had people come in that way overworked it in the morning.	
P48	P48: And then they come for a 4-hour session, and they're just, you know, it's already overcooked	
P48	P48: I think a lot of the time you can tell... I can tell based on pretty much their demeanor, and I'd say it's more of a physical thing for me. I can tell their level of fatigue, their level of...	C248 - Reliance on observational judgment to view fatigue.
P48	P48: everything, and then once they start seeing it, and it's often comparative as well, because in the studio, of course, you're playing with the emotions of, I'm in a studio, and that might be the first time, or the second time, or the third time	
P48	P48: Which is not quite, I'm super comfortable with this yet. Yeah. But then you're also balancing that with, well, how are they looking? How are they evidently, what are they emoting?	
P48	P48: And then I'm relying on, pretty much, if I've worked with that person before...	
P48	Kasia Howley: That's what I was just gonna say, that's an interesting perspective that you'll bring, is, obviously, I imagine there are people that you work with frequently, so you know their voices, but for someone that you maybe have only heard once.	
P48	Kasia Howley: Do you feel like the recognition of fatigue is similar or is it easier, against it being someone that you'd only heard the first time?	
P48	P48: I think I think the first time is very tricky unless it's.	
P48	P48: I think you were then relying on data from them, to some extent. Sure. Oh, I've just	C249 - Reliance on feedback from artist upon first meeting
P48	P48: you know, if you're in Nashville, I've had artists come in. I have, I had an artist specifically that she would play Broadway pretty much every night, and pretty much every day she was doing at least a show, and those shows are 4 hours straight.	C8 - High vocal workload
P48	P48: Which is obviously different to a vocal session, I'm taking some element of break in there and we can break things up. This is full, you know, song after song after song for four hours. And that could be at the early shift at 10am or that could be the late shift from like 10 till 2, like the other end.	C230 - Difference of demand between musical theatre and music
P48	P48: I think often I'm relying on data on someone that's new, from, oh, I've just been doing this much, whatever it is, and then if it's someone I know, that's a little bit different, because I'm expecting that every time we come into the studio, the performance should elevate a little bit, whether that's...	C249 - Reliance on feedback from artist upon first meeting C250 - Expectation from producers for performances to improve
P48	P48: simply comfort and being more used to it, or just, you know, as we work together over time, their vocal should improve, the more shows they're doing and everything, it all comes into it. Yeah.	
P48	P48: But yeah, it's tricky on the first one. And I think the emotional aspect of it is normally what overtakes it more than the, you're more playing with the mental game of how do we make you perform? How do we make you relaxed to allow you to perform efficiently and vocally deliver what you need to?	C251 - difficulty between creating a safe space and approaching vocal fatigue
P48	P48: It's not necessarily the most perfect technical performance. We need the most emotional performance. And how do I get you to that stage? Yeah. Rather than me going.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P48	P48: Oh, I think you sound tired straight away. That's very tricky on a first time performance.	
P48	Kasia Howley: And I think you've kind of answered it, but, do you have any particular things that you think contribute to vocal fatigue?	
P48	Kasia Howley: From either what people have maybe shared with you or personal experiences?	
P48	P48: The ones I mostly, most often are overworking, just.	
P48	Kasia Howley: Yep.	
P48	P48: show after show after show, and I've got a lot of... I've almost had	
P48	P48: I mean, everywhere, you see that everywhere, especially the remote people that are doing shows and shows and shows, they don't have time to come to Nashville, whatever, because they're so busy doing shows. You'll see that a lot of the time.	
P48	P48: So they... I mean, a lot of them will be playing... doing their job, then playing shows in the nighttime or at the weekends, and then trying to track a vocal to keep the productions going and stuff. And I think...	C1 - Demanding Schedule
P48	P48: I think it's generally the physical stuff for me is the I'm actually fatigued and I'm quite run down.	C31 - Physical fatigue then leading to illness
P48	Kasia Howley: Yeah	
P48	P48: Again, the athletic thing	
P48	Kasia Howley: In terms of, sort of, like, strategies and management of the condition, do you have any that you personally recommend, or that you know about, and if so, are you aware of how they're beneficial?	
P48	P48: I mean, I'm probably not as technically sound as I could be on a biological level.	
P48	P48: But I think the for me, I mean, the recording world is a little different because we have the option to go, let's do it another day. So a lot of the time I will honestly.	
P48	Kasia Howley: Which is a strategy really, you know!	
P48	P48: Yeah, that's my fundamental strategy, is pretty much, if it's not happening that day, that's cool. We'll take these as a vocal rough, we'll take it as a guide, we'll, you know, you've got kind of warmed into it, you can maybe see what you're liking.	C196 - Postponing sessions to facilitate recovery as strategy
P48	P48: But yeah, my main strategy, honestly, is rest. I'm not trying to push people through sessions. I mean, if they're there for one day, okay, maybe we try and spread it out, or we take some time, we stay off the dairy, we stay, you know, we get the honey and maybe the teas out, but...	
P48	P48: I'm not a huge believer in most of the time I can not have to push people through that kind of stuff.	
P48	Kasia Howley: Do you recommend any management strategies for them?	
P48	P48: I mean, the artist in Australia, for instance, I just said, honestly, take a couple of days of rest, don't really push it too hard, rest your voice for a couple of days, don't really do anything if you can, keep it minimal, and then give it another go. Because I don't think there's anything more...	C104 - Vocal Rest
P48	P48: No. That's probably the best out of every strategy you can possibly, you know, apply is just take time out and let your body rest and heal.	
P48	Kasia Howley: And this question, is probably more relevant to the professional voice user, but I'd be intrigued to know your perspective from viewing how they work. Do you feel like professional voice users	
P48	Kasia Howley: prioritise prevention or is it just management? So do they wait until the point they need to act upon it?	
P48	P48: Oh, man	
P48	P48: Oh, they don't prevent it. There is no way. And there's, I mean, you've also	C60 - Reactive management of vocal fatigue over prevention
P48	P48: I think there's the...	
P48	P48: It's so intrinsically tied to an income, which are professional vocalists, that it is a case of, I need to do this, and it's not like	C192 - Financial consequences and pressures of vocal fatigue for musicians
P48	P48: just like, as a guitar player, I might tape up a finger, or, you know, whatever it is to get through a show, wear a shoulder brace, whatever it happens to be, if they've injured themselves on tour or whatever. Vocalists	
P48	P48: pretty much... I mean, the people that know, and have done it before, and have had been through that, they will prepare a lot better, and they will keep their voice fit, and trained, and healthy, and all those sort of things.	
P48	P48: The majority do not do that. The majority are focusing on next show, next song, next song, right, let's keep doing that stuff. And it is a case of, okay, I'm at the point where I need to do something about it. I do think there's an interesting difference in genders. I think I've experienced... Very interesting. I've experienced, generally, female vocalists are much more acutely aware of	
P48	P48: their technical, facility, and I also feel like they are much more aware of needing to prepare a little bit better for that kind of a thing, and warming up.	
P48	P48: I also find that hampers their emotional performance, but that's a different thing, and they focus too much on the technical. Guys, on the other hand, will go, oh, it just sounds great, but that might be that I smoke 15 cigarettes, I have one vocalist who... I mean...	C252 - Difference in vocal management between genders
P48	P48: He just drank heavily whiskey to just keep things lubricated and warm and all that stuff in the studio as the vocal sessions went down.	
P48	P48: So yeah, there's definitely a different approach to it.	
P48	Kasia Howley: That's a really interesting perspective	
P48	P48: Also, don't forget that the There is a difference in what is appreciated for the two vocalists.	
P48	Kasia Howley: For sure.	
P48	P48: Male vocalists appreciate a manly growl, a bit of grit, a bit of distortion, actually the vocal not being quite technically perfect is often something that they're aiming for and have heard on records over the years.	
P48	P48: Female vocalists are often focusing on more of that pop sound, which is actually unattainable really without a load of technology and auto tune and, and heavy EQ and this sort of stuff. But they're expecting to hear that back when they, when they perform. And so they're aiming for this thing that actually is not really a pure voice and that's not a human voice. So their aspiration for that.	C253 - Different vocal expectation of genders in the music industry
P48	P48: Isn't really possible.	
P48	P48: But they then will constantly strive for that, which until you then put on the auto-tune, you put on the nice EQ, you put on the tube tech, which everyone uses and they expect to hear it, then they're like, oh yeah, that's what it's meant to sound like.	
P48	Kasia Howley: that's a really interesting point.	
P48	Kasia Howley: I think you've kind of answered, my next question, which was about kind of how comfortable you are discussing vocal fatigue with those you're working with, but from the way you've spoke, you know, you do have really open discussions, which is great!	
P48	P48: Yeah, yeah.	
P48	Kasia Howley: So I'll move on to the guide. So this guide is something that I created in my previous masters module	
P48	Kasia Howley: It's still very much being revised, informed by research and evidence. I know I sent it out, but I know everyone has such busy lives, so I'm going to bring it up on the screen, just so it's there.	
P48	P48: All good, I got it. I got a chance to look through it.	
P48	P48: Yeah, that's great	
P48	Kasia Howley: So I the first question is, having reviewed it, what were your initial thoughts?	
P48	P48: My initial thoughts were it covered a lot fast.	
P48	P48: And.	
P48	P48: Did I pick up enough depth from it?	
P48	Kasia Howley: Mmhmm.	
P48	P48: I think it...	
P48	P48: Very quickly discussed things that maybe you should be looking out for. Yeah. But I felt like it straddled a point between.	C254 - Need for rationale before reading the guide
P48	P48: It's that difficult point where when you know what you're talking about.	
P48	Kasia Howley: Mmhmm.	

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P48	P48: Have you made it incredibly clear to the people that don't know what they're talking about?	
P48	Kasia Howley: Mmm.	
P48	P48: And also... Do we really know?	
P48	P48: Why this is important.	
P48	Kasia Howley: Okay.	
P48	P48: Because we know these things aren't very good.	
P48	Kasia Howley: Mmhm.	
P48	P48: Potentially.	
P48	Kasia Howley: Yah.	
P48	P48: But I did wonder if why should I care about this a bit more needs to come first.	C254 - Need for rationale before reading the guide
P48	Kasia Howley: I see what you mean, so a point of what it could mean if this happened to you.	
P48	P48: Yeah, exactly. No one does anything unless they know, right, if I smoke, I'm going to get cancer.	
P48	Kasia Howley: Yeah. Okay.	
P48	P48: Okay, well maybe I'll think about not doing that, because that's not a good starting point.	
P48	P48: you know, that sort of, here's a reason why this actually matters, because you go straight into, oh, vocal fatigue, you don't want that, do you?	
P48	Kasia Howley: Yeah, yeah, I see what you mean.	
P48	P48: Why not? And obviously the word fatigue is not great. And I think if you, you know.	
P48	P48: People can know about that, but I felt like that was the thing. You were obviously trying to get a lot in there	C254 - Need for rationale before reading the guide
P48	Kasia Howley: Yeah	
P48	P48: I wondered if that was a thing for me because I think it straddles that line where it's trying to it's trying to do maybe too much.	
P48	Kasia Howley: Yeah	
P48	P48: Yeah. At once. So is it the, you are a vocal coach, so is it designed to be, well, you are teaching vocalists.	
P48	Kasia Howley: Mmhm.	
P48	P48: This is for you to understand better and then inform orally your student or your person that you're working with.	C255 - perceived differences in vocal health knowledge across industry roles
P48	Kasia Howley: Yeah, yeah, yeah.	
P48	P48: Or are we saying this is for anyone who sings, anyone who is using their voice on a professional level or a semi-professional level to be aware of their health, in which case then...	
P48	P48: I would go with what I said earlier and maybe it needs to be more of the, hey, here are the things that could happen and tailor it that way. I think straddling the two is maybe the point where it becomes tricky.	
P48	Kasia Howley: I get that.	
P48	P48: It goes, as you go through, it sort of gets very heavy into very specifically, you know, Larynx, you know.	
P48	Kasia Howley: Yeah	
P48	P48: It's like.	
P48	P48: It's like it should be. I think you've kind of got it on. One side is kind of the soft. Yeah, that's kind of how I wanted it. Yeah, yeah, yeah. But I mean, I think. I think you could	C256 - Suggestion for a specialist and general version of the guide
P48	P48: I would hit almost like make it two or make it one specifically for general.	
P48	Kasia Howley: That's a really good point. I could split it. Yeah.	
P48	P48: It feels a lot like, you know, like the kind of thing that, not in a rude way, this is not meant to be rude, it feels a lot like the kind of thing you'd pick up in a GP surgery, and you're going.	
P48	P48: Yeah, well, I mean, hey, I mean, why not? I mean, especially in the UK, that kind of thing is, is always very much appreciated, is the kind of,	
P48	P48: And if it can be that, that's cool. I mean, you could probably sell it to the NHS. They'll be like, hey, we'll put these in our GP surgeries.	C257 - Suggestion for guide to be distributed in health environments
P48	Kasia Howley: ah okay!	
P48	P48: Personal thing. It just seemed a little... It seems a little phlegmy.	
P48	Kasia Howley: Okay!	
P48	P48: Which is the association I have with it. You know, whenever you see healthcare, you always think light blue, and sort of...	
P48	Kasia Howley: okay! Maybe it would benefit from potentially, and again, this is a, an open question, having different colours throughout?	
P48	P48: Oh, that's cool.	
P48	Kasia Howley: Would it benefit from having muted colours of the whole spectrum?	
P48	P48: I would say so	
P48	Kasia Howley: That could be a point.	
P48	P48: I think you might be right about the, the splitting it kind of thing. Maybe having little sections or maybe that helps you focus a little bit more on each one. I think, let's think about the audience.	
P48	P48: people we're talking to are probably, you know, musical people and people that are artistic generally are more driven by the colours and that sort of thing. So I think, I think there could be, could be something in that. But I mean, that's, that's, that's a mild thing. I thought it was written really well!	
P48	Kasia Howley: And was there anything that you kind of got from it that, I don't know, highlighted anything new for you, or changed any of your perspective, or highlighted something you didn't know before?	
P48	P48: I do think your scientific bit is really good. I think there are definitely elements in that that I understood a little bit better.	C258- Appreciation of scientific depth
P48	P48: But yeah, so I, I thought it was really nice to see a bit more depth and, and I liked your, May presenters heaviness, May presenters. That's quite cool. I like that a lot. Maybe a little box around that or something to highlight that.	
P48	Kasia Howley: Yeah	
P48	P48: Yeah. To make... I think the symptom...	
P48	P48: yeah, I think making that a sort of, like, this is how you notice it is probably more important than the stuff that tells you how it works.	
P48	Kasia Howley: Mmm.	
P48	P48: Almost like... almost like doing it the other way around. Like, if you feel tightness,	
P48	P48: that could be neuromuscular	
P48	Kasia Howley: Yeah, the idea was with the bold and the different bits of italic is that, some people will only read those bits.	
P48	P48: I think yeah.	
P48	P48: Yeah, that's the, that's the bit that, that's the bit that connects with.	
P48	P48: the weak voice quality or tightness surrounding the laryngeal muscles. Okay, well, weak voice quality or tightness is the thing that you'll see first, right? So I would almost go	
P48	P48: You know, I know you're trying to describe what the science of it is.	

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P48	Kasia Howley: Yeah, yeah.	
P48	P48: But from a utility perspective and how useful that is.	
P48	P48: weak voice or ... weak voice quality or tightness is kind of the highlight? because we can all know what that feels like, and then we can go, oh, this is probably neuromuscular mechanism fatigue, and...	C259 - Understand symptoms before definition
P48	P48: this is what's going on. And then how do you fix that, or whatever? That would be kind of the... the... Yeah. Yeah, because that's how people do it, isn't it? They work out what the problem is first, and then they work out what it is, rather than,	
P48	P48: Name it first.	
P48	Kasia Howley: Oh, that's great. Well, thank you so much. Do you have anything else you want to share on it before I stop the recording?	
P48	P48: No, not at all. I think the thing for me is it's all got to point towards	
P48	P48: Performance and how does that enhance the performance and how does it facilitate that and I think there are times when fatigue can be used as a can be a tool as much as it can be a negative and that is maybe something I didn't say earlier is that if it is I will often do record things in order of	C260 - Inconsistency between framing fatigue as a risk but also a tool?
P48	P48: Not necessarily...	
P48	P48: if I know there's quite an emotional track, but it doesn't need to be a particularly strong vocal, I may well put that at the end of a session. Say we're doing, you know, we're actually tracking a lot of stuff for an album or something.	
P48	P48: I would often decide to do the tracks in a certain order in order to kind of facilitate it. We might start with something that's mediumly, not going to fatigue too heavily.	
P48	P48: Then go to something that's quite a test. So we've kind of had a warm up and I go through the medium, you know.	
P48	P48: And then, and then finish with something that's a little bit more fatiguing, or after that, for the emotional aspect. I think that's just always something to keep in mind, is the, it can be used as a tool.	C261 - Perception of using fatigue to enhance emotion
P48	Kasia Howley: Yeah!	
P48	Kasia Howley: Great. Well, thank you. I will stop the recording now!	

P49-S/G - Interview Coding

P49 - Interview

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
Individual Interview - Musical Theatre Graduate P49	Kasia Howley: So I've just put in an update of the terms and conditions. It's exactly the same as the questionnaire. The only difference is that you will be being audio and video recorded. That will then get saved to my cloud storage and kept private until the master's results come in case anybody asks for evidence.	
P49	Kasia Howley: if you're happy with all of this, you can verbally say yes, and then we can begin.	
P49	P49: Yeah, yep.	
P49	Kasia Howley: Wonderful. So for the purpose of the interview, could you just tell me a little bit about what stage you're at in your professional career and how you use your voice as a professional?	
P49	P49: Professionally, I'm just starting out, I've just done three years at drama school, which I suppose you could say semi-professional. Yeah.	
P49	P49: With using the voice, it's like a daily occurrence, within like three years having classes, like every single day, singing for like multiple hours a day, and then, in like this world, like learning songs, like having like a day's notice to learn a song, so it's like you're doing it for like	C4 - Demanding daily schedule C45 - pressure of timescales
P49	P49: The whole day, and then recording at night, and doing, like, maybe 15 takes of the same songs, trying to find the effects and stuff.	C118 - Repetitive voice use
P49	Kasia Howley: What do you do in your, have you got a part time job?	
P49	P49: Yes, I'm a waitress, so I speak for more than nine hours a day, every day, on top of the extra things. It's a lot of talking.	C9 - Multiple Professional Roles C10 - Demanding schedule outside of work
P49	Kasia Howley: Yeah, and do you find that that's quite intense on your voice?	
P49	P49: Yeah, yeah, yeah. After a week of, like, doing singing and then going to work for, like, a full weekend, I sound, like, croaky and tired.	C10 - Demanding schedule outside of work
P49	Kasia Howley: So, going from that, if I said the words, vocal fatigue, what would they mean to you? And that could be a definition, could just be how you would explain it?	
P49	P49: When your voice has to like when your voice is like.	
P49	P49: tired, I suppose, and, like, you have to, like, push more, or, like, use more effort to try and produce, like, a sound, and, like, it's not as controlled, and...	C13 - feeling tired C119 - lack of vocal control C120 - Increase in effort required to produce sound
P49	Kasia Howley: Yeah. do you think in the industry, and this could be through training, do you think there is a shared term, or a shared understanding of the term?	
P49	P49: Mmm.	
P49	P49: I think it's starting to slowly get better with understanding of it. I think... I think some people, like...	
P49	P49: More, like, famous performers say things that they don't really understand, like, on social media, which can lead to, like, misconceptions for, like, younger people and stuff that are, like, watching these, like, videos and, like, learning from them.	C121 - Vocal health advice from celebrities who are not qualified C122 - Incorrect information surrounding vocal health on social media
P49	Kasia Howley: Yeah.	
P49	P49: I feel like it's good that it's getting thrown around.	
P49	Kasia Howley: Yeah	
P49	P49: Just so that people are starting to, like, take more notice of what vocal fatigue is, because as a performer, it's, like, a big part of...	C123 - Vocal fatigue is a big part of performing
P49	Kasia Howley: Mmm.	
P49	P49: Life.	
P49	Kasia Howley: And do you feel like social media and the way that people do speak about vocal fatigue on there is something that your age group would look to for advice or guidance?	
P49	P49: I... I think... Performers specifically find it interesting like to know about in a way like.	
P49	P49: For example, like, if you're, like, a Pilates instructor or, like, a gym instructor, like, your body is what you, like, really care about, but as a performer, like, we're so interested in, like, well, like, I am anyway, looking after this and knowing all.	
P49	Kasia Howley: Okay.	
P49	P49: You've got to keep taking care of your voice. So...	
P49	P49: even like yeah I would watch these videos and think oh well she's doing that she's doing seven shows a week so what she's saying is correct even though you don't know that she's actually gone out on a night out after the shows are finished had about seven glasses of wine and some cigarettes and then she's complaining she's tired but you don't know that.	C124 - Prioritising information from successful performers C125 - Limited visibility of contributing factors
P49	Kasia Howley: Yeah, very true.	
P49	Kasia Howley: Sometimes maybe not factually correct information that people are learning from.	
P49	P49: Yes.	
P49	Kasia Howley: So, from, your own experience with vocal fatigue, do you feel there are any signs that you hear or look for when you're experiencing it? And that can be audible, physical, behaviour, emotional?	
P49	P49: Tightness and, like, sore muscles around the neck. Yep. For sure. More vocal fry. Yep. I've got that right now. Had a late night last night, so, like, that's, like, an implication of it. Yep.	C89 - Sensation of tightness around tongue and laryngeal region
P49	P49: Less control and like.	C119 - Lack of vocal control
P49	P49: the feeling of, like, pushing, when trying to, like, be, like, singing loud. Definitely more, like, breathy, like, in the thin fold, like, it, like, comes out sometimes when singing like that.	C126 - Lack of vocal fold closure C120 - Increase in effort required to produce sound
P49	Kasia Howley: Yeah, so lacking sort of closure.	
P49	P49: Yah.	
P49	Kasia Howley: Yeah, sure.	
P49	P49: I think that's due to like not putting in the full effort you need to actually close the folds properly.	
P49	Kasia Howley: Yeah, yeah.	
P49	P49: Physically, I feel like it's just like tense everywhere.	C95 - Vocal fatigue causing physical tension
P49	Kasia Howley: Yes	
P49	P49: You're trying to put in as much effort as possible in that one place, so you just get a bit stiff.	
P49	Kasia Howley: Yeah. And do you feel like when you are vocally fatigued, it makes you feel a certain way mentally or emotionally?	
P49	P49: More stressed for sure. I'm one of those people that I kind of like.	C127 - Vocal fatigue causing stress
P49	P49: I've been taught that if you can do a siren, and, like, it's smooth and clean, like, you are fine. So, sometimes it's just a perception of how bad the focal fatigue is, and to know when you need to stop.	C128 - Vocal sirens as a fatigue indicator
P49	P49: Instead of just, like, there's some points of fatigue where it's not too bad, where, like, I'll do a sired and be, like, okay, I'm fine, I am tired, but, like, that could be because of thousands of different things. Yeah. And then I'm a bit nervous, but then when you get into the song, you just... you just... it just happens.	C129 - Limitations of vocal self assessment methods
P49	Kasia Howley: Okay.	
P49	P49: But then, like, you... I have had times where, like.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P49	P49: It's just like a no go, like you start to do a siren and it just doesn't come out and you're like I've got to stop.	
P49	Kasia Howley: And do you feel like you use your siren as your marker?	
P49	P49: Yeah, for sure.	
P49	Kasia Howley: Do you think it's helpful?	
P49	P49: Not all the time, because I suppose when I siren, it's just using, like, the thinner part of my register, instead of, like, the belt.	C129 - Limitations of vocal self assessment methods
P49	Kasia Howley: If the siren doesn't go well, do you then think, oh no?	
P49	P49: I'll do it a few times to see, like, how it'll come out. If it's not coming out and it's really weak and really breathy and, like, it breaks a lot, I'll use that as an indication that's, like, don't even try and sing. If it's, like, a bit croaky on the first one.	C129 - Limitations of vocal self assessment methods
P49	Kasia Howley: Yeah.	
P49	P49: I'll try it again and again and see how high I can get and then warm up the higher register a little bit and if it's fine.	
P49	P49: I'll go for it	
P49	Kasia Howley: Could you reflect on, an experience that will probably have been from your training, because that's the most recent thing you've done, but I also don't mind if it's from an audition setting, where you were vocally fatigued in that space	
P49	Kasia Howley: And what happened, if you were felt a certain way?	
P49	P49: I guess probably in, like, a Sing... one of the, like, the last Singtech classes of the week.	
P49	Kasia Howley: Yep.	
P49	P49: I think we all had to get up and just sing a song, so it wasn't even really technique, it was just like...	
P49	P49: they were just trying to get everyone up to sync, give them a little bit of feedback, and then sit down again.	
P49	P49: I was very, very, very tired, like, even talking was, like, very hoarse and very quiet, and, like, I just couldn't speak. And I guess it's just, like.	
P49	P49: Performance anxiety, I guess, of like people.	C26 - Performance anxiety
P49	P49: When you constantly perform at a certain level and then you're off for 1 day.	
P49	Kasia Howley: Mhm.	
P49	P49: Everyone's like, oh, she's...	
P49	Kasia Howley: That level of like, I suppose your reputation, I suppose.	
P49	P49: Yeah, that's... I feel like the biggest... I think that's the biggest fear for all performers is, like, your reputation of.	C130 - Pressure of maintaining consistent vocal standards
P49	P49: Singing with vocal fatigue and stuff.	
P49	Kasia Howley: And in that class where you felt you had to get up, did you feel, again, you had to get up? What would happen if you said you weren't okay to get up?	
P49	P49: erm	
P49	P49: I think the teacher would probably just like analyze how you sound, I guess like.	
P49	P49: Like, a drama school, like, they kind of bring in things called, like, notes that you have to get at the beginning of the day from, like, a teacher to say, like, I can't sing, and, like, you could be fine in the morning, but it could get to 12 o'clock and you're...	
P49	P49: It's just hit you all the time and you're tired and they might be busy in class so you can't get a vocal note.	
P49	Kasia Howley: Right, and who do you get the vocal note from?	
P49	P49: Head of singing	
P49	Kasia Howley: And what do you have to do?	
P49	P49: You do nothing. You just email. You just tell them.	
P49	Kasia Howley: Right.	
P49	P49: good. But like, there's this sort of like thing that you just really have to do it to prove that you've got a note.	C131 - The need to justify vocal limitations
P49	Kasia Howley: And do you feel like having a note is a beneficial thing, or do some people find, like, having a note as a bit of a...	
P49	Kasia Howley: negative?	
P49	P49: I think they don't do it properly, they like they didn't do it properly, which was the issue like they implemented the note because people were being lazy and hadn't prepared rep to sing in the class. Right. So it was kind of like if you've not got- if you're not vocally tired you're getting up and singing.	C132 - Fear of perception of laziness
P49	Kasia Howley: Okay.	
P49	P49: But then they're also not checking the notes.	
P49	Kasia Howley: Right. So do you think some people would use the note as an excuse not to sing?	
P49	P49: Yes, 100%.	
P49	Kasia Howley: Which would then would then for you that I suppose take away the weight of the what the note is actually for.	
P49	P49: Yeah, like, what's the point?	
P49	Kasia Howley: People think you're in that group of people.	
P49	P49: Yes.	
P49	Kasia Howley: Interesting.	
P49	Kasia Howley: And in terms of vocal fatigue in a drama school setting, what do you think, and it could be, this can be lifestyle, anything, what do you feel like contributes to vocal fatigue?	
P49	P49: As in, like, doing, like, multiple singing classes a day, that kind of thing?	
P49	Kasia Howley: Yeah, yeah, anything. And it could be, like, personal things, you know, outside of, drama school as well, and nothing is a negative, just what do you think could make it worse for you?	
P49	P49: Obviously being like at uni like going out on the weekends like.	
P49	Kasia Howley: Yep.	
P49	P49: Having the uni experience, drinking, going to clubs and screaming, also like.	C24 - recreational voice use
P49	P49: When you're on your lunch break, no one sits in silence, so everyone's constantly talking throughout the whole day. A lot of people at drama school vape and smoke, so that's a fact that probably doesn't help.	C133 - Constant voice use
P49	Kasia Howley: And do you get sort of guidance on that?	
P49	P49: And.	
P49	P49: They try and implement guidance but when the teachers are also outside smoking it kind of contradicts itself, to be honest. Like you can't give advice to young people if you're not taking the advice yourself.	C134 - Contradiction between advice of staff and their own behaviour C135 - Lack of credibility surrounding advice
P49	Kasia Howley: Do students see the teachers too?	
P49	P49: Yeah, yeah, it's like teachers are there, students are there, like, looking at each other, smoking cigarettes. [gestures to side by side]	
P49	Kasia Howley: Yeah, so they're in a close, like, proximity. And is it singing department as well that are doing that.	
P49	P49: Every single department.	
P49	Kasia Howley: Right.	

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P49	Kasia Howley: So we've spoke about, sort of, why it happens, and, like, potential factors. Are there any things you think that help it? like, symptom relief that you know helps it. Could be things you've heard about, could be things that you do personally for your voice, and what effect do you think that does have on your voice?	
P49	P49: Hmm. I find for me.	
P49	Kasia Howley: Yep.	
P49	P49: Not talking.	
P49	P49: If I've done like a full day of like.	
P49	P49: School or like I've done a full 9 hours of work.	
P49	Kasia Howley: Yeah,	
P49	P49: Coming Home, not saying anything.	
P49	Kasia Howley: Yep.	
P49	P49: Putting on the TV and just literally not talking for the rest of the day helps. I am a big fan of nebulising and steaming, just like keep it hydrated. I like to steam in the morning and then not talk and then nebulise throughout the day just to keep it...	C104 - Vocal Rest C49 - Nebulising C47 - Steaming
P49	Kasia Howley: And what do you feel like the benefit is from those two specifically?	
P49	P49: erm,	
P49	P49: It just, I feel like steaming for me is just like.	
P49	P49: Obviously, they're both instant hydration.	
P49	Kasia Howley: Yeah	
P49	P49: but I just feel like steaming feels more beneficial to me in some way, like, I don't know if it's just the way my voice is, or, like, it just feels like it gives me, like, instant, like, hydration, and, like...	C136 - Steaming and nebulising for instant hydration C137 - Favour for steaming for instant hydration
P49	P49: When, like, if you've got, like, an audition in the morning, like, it just... if you've not woke up early enough to drink enough water, like, it just gives you that instant...	C138 - Substitute steaming for lack of water intake
P49	Kasia Howley: And do you feel like nebulizing gives you not as much hydration than a steaming does?	
P49	P49: I just don't feel as many effects necessarily.	C140 - Preference for steaming over nebulising
P49	Kasia Howley: So Why do you nebulise?	
P49	P49: convenience of the practice because you can't always bring a kettle around with you to boil the water.	C139 - Convenience of strategies
P49	Kasia Howley: Yep.	
P49	P49: But if... because it is doing something, obviously, because it's, like, clean, like, steamed water that is hitting my cords, so it will be doing something.	
P49	Kasia Howley: And do you think it's doing something because of...	
P49	Kasia Howley: guidance you've heard about it doing something or do you feel like it's doing something?	
P49	P49: I definitely feel a difference over time if I use them.	
P49	Kasia Howley: Yep.	
P49	P49: Like, when I did, like, my third year musical, like, I was doing it every day just to keep on top of, like.	
P49	P49: the maintenance of my voice, and, like, I definitely felt like my voice was a lot more, like.	
P49	P49: Elastic and like easy like it just felt like easier to like function.	
P49	P49: As opposed to like, no I'm not feeling like that.	
P49	Kasia Howley: No, it's interesting. And then when you are vocally fatigued, and this could be regarding your peers as well, things you've observed, but also about yourself, do you feel like you manage vocal fatigue when it's occurred or you prioritise prevention?	
P49	P49: I think... When I know I have something coming up.	C141 - Anticipation prevention prior to upcoming engagements
P49	P49: I prioritise prevention.	
P49	P49: But if it's, like, if I'm not preparing for anything like a show or, like, anything like that and it happens, then I'll prioritise recovery.	C60 - Reactive management of vocal fatigue
P49	Kasia Howley: Hmm.	
P49	Kasia Howley: Do you think this is universal within training.	
P49	P49: No, definitely everyone focuses on recovery. I don't think anyone thinks about the fatigue until it gets to them.	C60 - Reactive management of vocal fatigue
P49	Kasia Howley: Okay.	
P49	Kasia Howley: Do you think, and this will be again reflected on your time within education, it could be to do with people who have come in and worked with you or it could be people are regular staff. Do you feel like you would be comfortable speaking to people of power about vocal fatigue? This could also be going into the professional industry	
P49	P49: Hmmm.	
P49	Kasia Howley: to say, I'm vocally tired, I think I need to take today, or I need to pull it back today.	
P49	P49: I think it would depend on where my position was in the show.	
P49	P49: like, if I was in the ensemble, I would probably power through it, because obviously you've got, like, an array of voices to support you. But, like, if you were, for example.	C61 - Role dependant responsibility
P49	P49: Elphaba in Wicked, you can't just power through it, because then you'd have no voice, then you'd probably end up missing a week's worth of shows, when if you just took a day off, you could have just missed two.	C61 - Role dependant responsibility
P49	Kasia Howley: And if you were ensemble, let's say a second cover of a role.	
P49	P49: I think.	
P49	Kasia Howley: And you powered through, let's say, and then had to go.	
P49	P49: I think that's a very difficult decision to make dependent on who you are as a person.	C143 - Hesitancy to confirm taking time off for vocal fatigue
P49	Kasia Howley: Yep.	
P49	P49: Because, obviously, like, there's a certain... like, it's also, like, lifestyle and payment at the end of the day, so you can't just keep having shows off if your voice can't sustain, like, the performances, like, this is what we've done as a career, and, like, we have to try and... do it	C93- Feel like fatigue is personal failure
P49	Kasia Howley: Do you feel like you have to try doing it? Is that what you'd feel like?	
P49	P49: I feel like me as a human being, no. I feel like I know my voice, so I would know.	
P49	P49: When to not do something, and when to...	
P49	P49: Do something, but I feel like as you.	
P49	P49: Like.	
P49	P49: As a group of people, performers, don't really think...	
P49	Kasia Howley: Yeah.	

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P49	P49: That way, like... I think they would just keep trying.	
P49	Kasia Howley: Yeah. And are you, like, advocated during your training and talked to about... about when is a point to say no, and when is a point that you can step back, and how to have those conversations?	
P49	P49: We had, like, one vocal...	
P49	P49: Like health class, like literally like a 1 hour 15 minute vocal class over 3 years.	C144 - Limited exposure to vocal health education
P49	P49: From what I can remember. And obviously, like, I knew everything that she was telling us, so it was just a bit like...	C145 - frequent repetition of existing knowledge
P49	P49: Yeah, thanks I guess, but like.	
P49	P49: This is... this is...	
P49	Kasia Howley: no new information.	
P49	P49: Like, none.	
P49	Kasia Howley: So was there anything about sort of the how it would work in the industry and how it would relay into?	
P49	P49: Not really, but the teacher teaching us about it hadn't been in the industry, so I don't think she even knew herself. She was just telling us information based off what other people had told her, if that makes sense.	
P49	Kasia Howley: Mmhm.	
P49	P49: People go to these podcasts of people actually doing it because better to get it from a source like someone who's actually in the industry than get it from a teacher who hasn't really.	C146 - Power of podcast guidance
P49	P49: It's just like not done anything like it.	
P49	Kasia Howley: Interesting.	
P49	P49: It was just like word of mouth of what they just told so that was the issue that there was no like.	C46 - Reliance on word of mouth advice
P49	P49: I suppose like scientific understanding to back it up, it was just like nebulizing hydrates you.	
P49	Kasia Howley: So you feel like maybe it would be beneficial to have like from the science background combined with.	
P49	Kasia Howley: Understanding of how it works in the professional field.	
P49	P49: Yeah, and I think, honestly, like, a drama school, it could be stretched out over so many more weeks, like, there's so many different sections of vocal health to go into that they just skim over and just say...	
P49	P49: Like, you can have a week for, like, steaming and, like, talking about how that, like... Yeah. And, like, how to go about it and stuff like that, and warm-ups and all this.	
P49	Kasia Howley: Do you feel like you were given a lot of advice about strategies?	
P49	P49: People's voices are very different. So if someone had an issue.	
P49	Kasia Howley: Okay.	
P49	P49: They would try and help them.	
P49	Kasia Howley: Yep.	
P49	P49: But there was a girl in our year who had severe vocal fatigue, like, she had it for months, she couldn't sing, like.	
P49	P49: Literally, like, no sound was really coming out when she was singing, and it was so strange. They said, go and get a scope. Like, that was their solution. They didn't even know, like, ways to support or, like...	
P49	P49: Yeah. They just sent us straight to the doctors, which I suppose is like still helpful information.	
P49	Kasia Howley: I guess it depends on how long it had been going on for. And in terms of your steam and your nebulizer and that sort of thing, would you say that that's the main guidance?	
P49	Kasia Howley: You were given.	
P49	P49: I feel like...	
P49	P49: they didn't even necessarily say do this, I felt one person does something, and everyone else eventually catches on.	
P49	Kasia Howley: So you feel like that, and do you think that's the case with strategies?	
P49	P49: Yeah.	
P49	P49: I feel like if one person is like	
P49	P49: like, popular in a way, like, start steaming, then their friend will get one, and then their friend will get one, and then their friend will get one. Yeah. And when the musicals came around, the third year shows, everybody was, like, nebulized, and it's like, you've not nebulized for 3 years?	C147 - Influence of peers on vocal care strategies
P49	Kasia Howley: That's a really interesting.	
P49	P49: I'm really confused why you're just jumping on this right now, like.	
P49	Kasia Howley: Yeah, yeah.	
P49	P49: Strange.	
P49	Kasia Howley: No, that's really interesting. So second part is essentially to look at this guide. So I'll bring it up. So I know I sent it before, but I'm aware that everyone has a busy schedule! So I'm going to put it on here as well	
P49	P49: Amazing.	
P49	Kasia Howley: So I created this in the last module of my Master's, it is based on research and science and also to do with how people learn, so like cognitive development, the way people visually process knowledge, that sort of thing. It's still very much in refinement	
P49	Kasia Howley: I'd just be intrigued to know any thoughts you had on it, if you learned anything new, if there was anything that highlighted something you already new, literally any thoughts and feedback would be wonderful.	
P49	P49: I... Loved the middle section. [referring to stages of identification]	C148 - Loved section on symptom response and identification structure
P49	P49: I feel like no one really talks about, like, the stages of identifying your symptoms, like, they kind of just.	
P49	P49: Say, oh, you're fatigued, do Oh, you feel this way, do this, it's never like.	C73 Logical structure of progression
P49	P49: Think about what's going on, like, how long has it actually been going on.	
P49	Kasia Howley: Okay, great.	
P49	P49: Like, no one really discusses that, it's just kind of, like, problem-solution, instead of, like, go through actually how you're feeling, and I think this is why people have no idea about their voices, because they don't	C76 - New thought provoking information
P49	P49: Sit with it.	
P49	Kasia Howley: Yep.	
P49	P49: They just try and fix it, even though they might not be.	
P49	Kasia Howley: Do you feel like people go to the last stage?	
P49	P49: Yeah.	
P49	P49: Without knowing what to do, we just start implementing random things and like.	
P49	Kasia Howley: Yes.	
P49	Kasia Howley: Do you think in that, actually, because of what you just said, do you think it would be beneficial for all these to be a normal font, and do you think, like, bolding, 'targeted' and sort of things like 'potential'...	
P49	Kasia Howley: Would be beneficial?	
P49	P49: I think so, because... I think...	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P49	P49: I also think, because they're both in black.	
P49	P49: That kind of highlights like where people are going.	C149 - Black as a background colour can be too stand out to the eye
P49	P49: You know, I mean, like, identify your symptom, then they go straight to implement targeted strategies.	
P49	Kasia Howley: Yeah, yeah, yeah.	
P49	P49: So maybe like, not...	
P49	Kasia Howley: True, actually, maybe the black color is actually quite a.	
P49	Kasia Howley: Yeah, maybe just black away and keep them all a level of green.	
P49	P49: Yeah, just to, like, make sure emphasis isn't in the wrong places	
P49	Kasia Howley: Yeah.	
P49	Kasia Howley: That's a good point.	
P49	P49: and they go through the step by step process.	
P49	Kasia Howley: Yeah. Was there anything else you learned on here that you didn't know before?	
P49	P49: Just reread it again.	
P49	P49: I didn't know any of the things in the middle section.	
P49	P49: Of this one [scientific moment] like all these like no I don't I've never heard this in my life.	
P49	Kasia Howley: do you find it interesting to learn?	
P49	P49: Yeah, I mean, I love, like, the whole scientific elements of the voice, and it would be nice if we got taught this.	C76 - New thought provoking information C77 -Integration with existing support systems
P49	P49: And I like how there's like a little definition underneath.	C79 - Balancing scientific detail with accessibility
P49	P49: So even though you've got the really like scientific.	
P49	P49: It's easy to ex- understand with the bit underneath, which I think is really helpful.	
P49	Kasia Howley: Good, yeah.	
P49	Kasia Howley: And has it affirmed anything that you already did know?	
P49	P49: I think it's just a like.	
P49	P49: I think it just solidifies all the points that were made in the previous slide and kind of backed up with actual scientific.	
P49	Kasia Howley: Yeah.	
P49	P49: Evidence.	
P49	P49: It explains everything, so if people are like, where's she got this from? It's like, well, it's literally there, so...	
P49	Kasia Howley: Yeah.	
P49	P49: There's no argument.	
P49	Kasia Howley: No, great. And do you think this would be beneficial in the industry? This could be training, industry, and to who do you think it would be beneficial?	
P49	P49: I think this should go out to...	
P49	P49: Colleges that are looking, I think colleges is like a really good place to start because they're like the younger generation who.	C150 -Guides to be used in college and university settings
P49	P49: Or easier to, like, teach things, like, they're more open-minded with learning new ways of, like, looking after their voice.	
P49	P49: Whereas performers in the industry right now can be stubborn, and, like, they've been taking vocal zones for years, like, that's what works for them. They put wine gums in their mouth to produce spit or whatever, and, like, that's just... they won't change. Whereas, like, younger people have got more, like.	C151 - Hard to break older generation performers out of habits
P49	P49: Evolvement about them, even like universities, because a lot of people go to university with no idea.	
P49	Kasia Howley: Yep.	
P49	P49: So they will read this and take it as biblical. And that's good because it's research information.	
P49	Kasia Howley: do you think it's written in a way that could help people change, I suppose?	
P49	P49: I think so, when I first saw this, I was like, it looks like.	
P49	P49: Do you like, in school, where you have, like, the information flight that's around? Yeah. And, like, they catch your attention, and you look at them, and... Yep. If, like, theatres had these...	C72 - Clear and accessible design
P49	P49: Like on doors and stuff and like on mirrors and.	C82 - Workplace distribution of fatigue resources
P49	Kasia Howley: Yep.	
P49	P49: People would read them, so I think.	
P49	Kasia Howley: Yes.	
P49	P49: Almost everything about someone's...	
P49	Kasia Howley: It can give them a lot of ideas.	
P49	P49: Change something. Yeah, I mean.	
P49	Kasia Howley: And for example, like, you said you had that, session at university where it was, like, an hour and 15. Do you think for sessions like that, things like this would be beneficial?	
P49	P49: I think so.	
P49	Kasia Howley: And do you feel like some of this information wasn't given to you?	
P49	P49: No, no	
P49	Kasia Howley: Mmm.	
P49	P49: Especially from, and this is no shade to them but the MD's really	
P49	Kasia Howley: No, no.	
P49	P49: Really.	
P49	P49: They go through... the singing, they, like, don't care, like, they're gonna teach you the harmonies, and you're going to go about your day	
P49	Kasia Howley: Yep.	
P49	P49: Maybe if you're a principal, and you have a lot to say, and they'll hone in on you a little bit more, and, like, make sure...	
P49	P49: But a lot of the I feel like they don't really.	
P49	Kasia Howley: And do you think an MD, you would find it, like, appropriate if, like, an MD, could give people this, as opposed, just like...	
P49	Kasia Howley: Maybe even if it wasn't verbal, just as a handout.	
P49	P49: Absolutely, like, that's kind of their job, to, like, look after the singer, so... they don't know how to look after the singer	C152 - Need more more guidance and support from Musical Directors
P49	Kasia Howley: Yeah	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P49	P49: Then what are we there for?	
P49	Kasia Howley: And do you think we're in a day and age where people still use handouts?	
P49	Kasia Howley: or do you think it should be completely digitalised?	
P49	P49: I think it should be both.	C117- Preference for a hard copy alongside digital
P49	Kasia Howley: Okay.	
P49	Kasia Howley: Do you think it translates onto a phone that it is a leaflet? Do you envisage it like it is a leaflet?	
P49	P49: Oh, yeah.	
P49	Kasia Howley: Okay.	
P49	Kasia Howley: do you have anything else you'd like to share?	
P49	P49: Ehm, no!	
P49	P49: Hold on, just checking I think everything's covered that I could think of on here!	
P49	Kasia Howley: Good.	
P49	P49: Yeah.	
P49	Kasia Howley: I'll Stop the recording now!	

Appendix I - Focus Group/ Dyad Coding

Focus Group 1 - Collaborators (P18-MD, P21-MD, P30-MP, P58-MP)

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
FOCUS GROUP 1 P18 - Musical Director P30 - Music Producer P21 - Musical Director P58 - Music Producer	Kasia Howley: So this will run as a focus group in a semi-structured format, so I've got some questions and prompts, but it's quite free, and there will be a chance for everyone to share and comment as they want to,	
	Kasia Howley: or you can bounce off what someone else has said.	
	Kasia Howley: Obviously, you all did the questionnaire, which was brilliant and I'm really grateful for your responses. This will follow much of the same theme around vocal fatigue, with your perspectives and real life experiences.	
	Kasia Howley: And for the last 10 minutes, we'll chat about the guide.	
	Kasia Howley: So to start, it'd be great if we could just go around and you could introduce yourself and share what you do for a profession, and how you work with professional voice users, in what capacity?	
P21	P21: Shall I go first?	
	Kasia Howley: Yeah!	
P21	P21: Hello, everyone.	
P21	P21: I am the senior rep teacher at [Drama school/university]. So I teach degree level repertoire and I also accompany workshops, ATS lessons, auditions, performances	
	Kasia Howley: Fabulous.	
P18	P18: I'll go next.	
P18	P18: I'm a musical director, so I do a lot of working in groups. I do professional shows every year. I do community shows every year as well as working with students. So I have a sort of wide range, but generally in group settings and ensemble singing settings.	
P30	P30: Hello, I'm a music producer, so I work with artists,	
P30	P30: I also write music for TV and Film Library.	
P58	P58: I run [music production company]	
P58	P58: We are a roster of bespoke music composers and sound designers, mainly for brands, so we do a lot of ad work.	
P58	P58: And a lot of audio branding.	
P58	P58: And that's... that's me.	
	Kasia Howley: Thanks everyone. So going straight into it	
	Kasia Howley: If I said the term vocal fatigue, what would it mean to you? That could be in any capacity.	
P21	P21: For me, it's just in the setting I work in, obviously, it's when they've just knackered themselves out.	
P21	P21: Not... I know that's not the scientific...	
	Kasia Howley: No, however you see it!	
P21	P21: But because I see them one on one.	
P21	P21: And the fatigue usually comes from all-over body fatigue, because they're just exhausted.	C246 - Vocal fatigue reflected in physicality
P18	P18: For me, I see it as their voice isn't working at full potential.	C154 - Voice not working at full potential
P18	P18: So I sit there and go, like, obviously from, like, exhaustion, especially when they've done, like, a million hours of dance class and they've come in and they're all over fatigued	
P18	P18: But also sometimes overuse. So if they've had like a big stress, lots of singing that they've had to work on or back to back rehearsals. So it's.	
P18	P18: Something that's happened before that usually ends up with their voices not working properly, and there's something going on there.	
	Kasia Howley: Interestingly, you said there as well, physically, do you feel like you can see that manifest physically, sometimes as well?	
P18	P18: Oh yeah.	
P18	P18: Yeah, especially when I do song and dance with them. And they've often done like four hours of dance class and they're coming to me and I'm making them sing and dance at the same time.	C246 - Vocal fatigue reflected in physicality
P18	P18: Multiple times in the lesson. They don't always like that.	
P58	P58: I think, I think for, for me,	
P58	P58: it mainly looks like frustration, like, we get people into the studio quite, quite regularly to do, sort of, quick, sort of, 45-minute sessions for projects. Most of the stuff that we write is, like,	C18 - Frustration with vocal limitations
P58	P58: 30 seconds long, so they don't... it doesn't take that long. But no vocalist I've ever worked with has ever liked to turn down a paid gig, like, especially because we pay fairly... I think fairly well, you know, we're paying them sort of...	C192 - Financial consequences and pressures of vocal fatigue for musicians
P58	P58: you know, 175 quid an hour or something, so it's like... or try to, so it's like, you know, they don't ever want to turn down those projects. They'll come in if their voice is at top notch, or their voice is struggling, and so we kind of see it on a sort of fairly semi-regular basis.	C192 - Financial consequences and pressures of vocal fatigue for musicians
P58	P58: People coming in and sort of not being at, like, top condition, but not wanting to turn down the work, because obviously working in	
P58	P58: Music is a nightmare.	C192 - Financial consequences and pressures of vocal fatigue for musicians
P58	P58: And.	
P30	P30: Yeah, same. I see it all the time. Particularly after a writing session, we'll finish the day recording, and we've been writing and singing all day long, and then we record at the end, so there's a lot of vocal fatigue at the end.	C118 - Repetitive voice use
	Kasia Howley: Mmm.	
	Kasia Howley: And you've kind of all, all touched on it a little bit, but do you think there's a sort of shared understanding within your industry? So I suppose within the music production industry and then within musical directors? do you think there's a shared perspective of the term?	
P21	P21: I doubt it.	
P21	P21: 'Cause I think it's a very diff... Like Illustrator, there's a different...	
P21	P21: consequence to it. And it's a it's really different.	
P21	P21: Like, for me, I work.	
P21	P21: parallel to a load of very, very gifted technique teachers who use expressions I've never heard of in my life, and I nod like, yeah, sure. So I know about it kind of medically, in that sense, through osmosis, whereas obviously	C108 - Accurate definition of vocal fatigue required for people
P21	P21: It depends what environment you're in.	
	Kasia Howley: Yep.	
P21	P21: how it sort of manifests, doesn't it? So I doubt there's a... I really doubt there's a sort of universal agreed understanding of it.	C108 - Accurate definition of vocal fatigue required for people
P18	P18: Yeah, and whereas I look at you guys and I go, you guys are probably seeing people in like one-to-one or small group situations, I frequently see people with like 30 people in a room.	
P18	P18: Where...	
P18	P18: I trust that people are looking after themselves individually, but I have to look at it from a group scenario and see what the effect of, like, maybe individual fatigue is having on a group scenario, and how I can sort of manage that in the situation.	C305 - Difficulty to manage fatigue in a group setting

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P58	P58: I don't think, I don't, I think for me, I don't think I'd, until you, until you called it vocal fatigue, I don't think I'd really...	C108 - Accurate definition of vocal fatigue required for people
P58	P58: heard it called that before. Like, I definitely... like, I think it was... it was almost like giving it a name. I think I've, you know, I've seen... I've seen people come in and they've... or, you know, had friends or colleagues that have been, kind of, giggling lots and then come into the studio and, like, not been able to reach...	
P58	P58: the same, range, or the same sort of level of volume that they would normally be able to do, but I don't think I'd ever heard it... they didn't talk about it like that when they were here, like, from a professional vocal point of view, they didn't say, oh, I'm suffering from vocal fatigue.	C108 - Accurate definition of vocal fatigue required for people
P30	P30: Have you heard of fried? Because a lot of people say my voice is fried.	C208 - Vocal fatigue described using other words
P58	P58: Yeah, yeah, definitely that. They've used other words to describe it.	
P58	P58: Yeah, or just knackered, or like, or they'.	C208 - Vocal fatigue described using other words
P58	P58: I've done 6 gigs in a row, and now I'm here in the studio, and I.	
P58	P58: You know, but, like, it's never... I've never heard it, sort of, be called vocal fatigue until you said.	
	Kasia Howley: Interesting.	
P58	P58: this is what this is, so I think it's kind of almost like... feels like a positive... at least a positive step for me already, because I know what it's called.	
	Kasia Howley: Yay	
	Kasia Howley: And you've all kind of touched on it, but what sort of signs do you feel like you recognise from those you work with who have experienced it? It could be physical, it could be emotional, it could be behaviour, it could be audible.	
P21	P21: I think for me, it's sometimes quite easy because by definition, I'm working on the same material regularly with a student. And so if it's like, well, they could hit this note two days ago and they can't, so that is obviously a...	
P21	P21: a good sign, because it can sometimes be difficult to spot with that age group. They're not the best at sometimes being honest about, you know, they'll lie to you about how late they were up, and whether or not they smoke, and you just, you know, you have to sort of	C296 - Habitual vocal habits/ability to measure vocal fatigue
P21	P21: Wade through all that.	
	Kasia Howley: Do you feel like as they get older, they become a little bit more...	
	Kasia Howley: reflective of their own voice?	
P21	P21: I think we, yeah, I think we all do, because I think with every aspect as well, like.	
P21	P21: with their physical limitations as well, like, the dancers will just go, no, no, no, I'm fine, even if they've hurt their ankle or whatever, because they just want to... so I think it's the same attitude with singers, but the older you get, the more you...	
P21	P21: You just, just know yourself better, don't you? And you can recognise it before it happens.	
	Kasia Howley: Yep.	
P58	P58: On a commercial level, for me, it's, like, more	
P58	P58: availability. There's been a few, a few kind of instances where we've had a vocalist in mind for a project.	
P58	P58: like, really wanted to get them in, and then rung them, and they've just been like, I can't, there's just no way I can come in and do that. So, like, on the extreme level, like, for us, it just looks like they're just... people aren't around...	C192 - Financial consequences and pressures of vocal fatigue for musicians
	Kasia Howley: Mmm.	
P58	P58: As much as they would have been or like as much as they'd like to be and I think also then it like causes quite an emotional reaction as well because again like, you know, they, they, they don't want to turn down a paid gig and, and, and like already sort of.	
P58	P58: every... every creative in music that I know is terrified about money, has never not been terrified about money, so it's, like, really kind of... you know, if I... if I know them quite well, it really brings up, like, all of that stuff about...	C192 - Financial consequences and pressures of vocal fatigue for musicians
P58	P58: can we do next week, or can we do the week after? You know, all of those questions about whether, like, how flexible the project is, maybe they'll be better tomorrow. Like, it's sort of, it really quickly sort of snowballs into this quite sort of emotive	C45 - Pressure of timescales
P58	P58: Emotive space, really, I think.	
	Kasia Howley: And I think that's a really interesting point	
P58	P58: Yeah.	
P58	P58: Everybody's terrified of running out of money.	
P21	P21: Yeah, I've, I've, I've known, I've got friends who have definitely done gigs when they know they shouldn't have done it because they know they should be resting, but they can't do without that 200 quid. It's a really good point.	C192 - Financial consequences and pressures of vocal fatigue for musicians
	Kasia Howley: Yes.	
P18	P18: Yeah, I find all this really interesting, especially in relation to like big contracts. So I do panto every year and we specifically record sick tracks in case anyone's voice isn't up to it on any given show.	C306 - Performers reluctant to use tracks as resources to aid them
P18	P18: But it's amazing to see how much people will try to push through to avoid using something that's seen as a crutch, even though it's designed to be there for when I have to do 73 shows in 6 weeks.	C306 - Performers reluctant to use tracks as resources to aid them
P18	P18: Which I'm doing this year. Yeah.	
	Kasia Howley: That's a really good point that you've recorded the sick tracks but they don't, they feel like they shouldn't use them?	
P18	P18: Yeah, and it ends up being... I've had lots of conversations with people where I'm like, this is here to help you, we're not dubbing you with someone else's voice, this is your voice.	C306 - Performers reluctant to use tracks as resources to aid them
P18	P18: We recorded it in week one of the shows, this is you singing live to the track.	
P18	P18: And it's amazing to see how much people are just so resistant to that, because they think, especially in the professional world, if it's not you doing it live on the night, what is it?	C306 - Performers reluctant to use tracks as resources to aid them
	Kasia Howley: Mmm.	
	Kasia Howley: And then, I think, sorry [P30], did you have anything to say on that.	
P30	P30: Yeah, they're just voice cracks or hoarseness in the voice.	C119 - Lack of vocal control
P30	P30: Yeah, like you say, they could hit a note a minute ago, now it's just not, it's either not coming out or it's just, you know.	
	Kasia Howley: And is it like, do you see an emotional or physical response as well?	
P30	P30: Yeah, frustration, anger.	C127 - Vocal fatigue causing stress (emotional impact)
P30	P30: Yeah, like yesterday, we had to stop.	
P30	P30: And we're about to rebook in for another day, but it's, yeah, that's frustrating for them. Yeah.	
	Kasia Howley: Yeah.	
P30	P30: Actually makes it worse the more the more annoyed they get.	C18 - Frustration with vocal limitations
P30	P30: Cause they can't hit the note	
P30	P30: The worse their voice gets	
	Kasia Howley: What do you think, or do you have any ideas of what contributes to vocal fatigue? And that could be the things that people you're working with have told you, or just any ideas you have of what you think may contribute to it?	
P18	P18: I've seen emotion contribute to it.	C19 - Emotional impact on voice

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	Kasia Howley: Yes.	
P18	P18: I had a situation where a cast member, this is again on a professional show, they had a family member pass away the day before, but still turned up to do the show.	
P18	P18: But they were unable to sing because the emotion, the emotion of going through the grief of that situation for them.	
P18	P18: But...	
P18	P18: Really sort of punished their ability to, like, control what was happening. And I totally understand that. But it was really interesting to see her try to force her way through it. And I was like, no, no, no, no, we've got covers. You're going to be okay. Please have a day off. And then on the flip side, because I do work with students as well.	C22 - Pushing through vocal difficulties
P18	P21: Okay.	
P18	P18: People who do their first ever show week, and they've done 6 shows in that week for the first time, and they've just got overexcited.	
P18	P18: And push again, push through when they shouldn't because they don't recognize what point the damage starts.	C22 - Pushing through vocal difficulties
	Kasia Howley: Yep.	
P21	P18: So yeah, I see that one. Then I go come back a week later and they go, oh, no, can't sing. I go, yep, because you got too excited, went.	
P21	P18: don't know when to stop.	
P21	P21: Sometimes for me, because I'm not a technician, and So...	
P21	P21: for example, I don't know whether your voice sounds like that because you're fatigued, or because you just had a cheese sandwich and it's clogged up your throat. Do you know what I mean? Like, so I...	
P21	P21: I, I wouldn't, as, as I say, it's not for me to sort of try and diagnose anyone, which is where you have to rely on them.	C249 - Reliance on feedback from artist/performer
	Kasia Howley: Yeah.	
P21	P21: So no.	
	Kasia Howley: Do people share a lot in recording sessions as to why they feel like that or do you think?	
P30	P30: I think it depends on who you're with	
	Kasia Howley: Yeah	
P30	P30: different personalities, but,	
P30	P30: Yeah, I think, yeah, I've had, I've had people... Openly talk about it, yeah.	
P30	P30: Yeah, some people don't really understand it, I think.	
	Kasia Howley: Mhm.	
P21	P21: also sort of resistant. I don't want to put ideas into people's heads or give that, like, I don't want to be like, oh, it sounds like you've got vocal fatigue if, and then all of a sudden they start worry.	C251 - difficulty between creating a safe space and approaching vocal fatigue
	Kasia Howley: Yep.	
P21	P21: Make it worse. Do you know what I mean? It's.	
	Kasia Howley: Yep.	
P30	P30: Yeah. And people get it confused because I've had stuff where they think they've got the voices going and it's like they haven't actually just warmed up at all. A couple of lines, give it 20 minutes and you'll be able to hit them.	C285 - Simplified perceptions of vocal fatigue
	Kasia Howley: That's really interesting.	
P18	P18: Sometimes, I get the sort of small line of people waiting to speak to me at the beginning of class, and they all come up to me and go, oh, I'm on vocal rest this week but you also then see them talking at full volume in corridors and not actually going on vocal rest.	C104 - Vocal Rest
	Kasia Howley: In terms of, like, approaches to manage vocal fatigue, are you aware of any approaches that you think do support vocal fatigue, and would you feel comfortable	
	Kasia Howley: Sharing those with those you're working with, or do you feel like there's any you'd like more clarity on, on what they do?	
P21	P21: I'm always like, more water, more sleep, and ask a singing teacher. That's my strategy.	C171 - Variation in Musical director vocal health knowledge
	Kasia Howley: Yep.	
	P21: Okay.	
	P18: My one is to make sure that, like, everyone does a full warm up that relates to what we're going to be doing in the group session, and then they can assess their own individual needs of what they need to do. And also, if I know I'm going to do big lots of, like, top soprano singing, that we don't have to sing, scream top A's incessantly.	C3 - Company led warm up C2- Importance of a self developed warm up
	Kasia Howley: Okay, yeah.	
P58	P58: I think, I think it's a really, I think it's a really good question, because from my perspective, it's almost a little bit like	
P58	P58: Unless... unless we've got a really good relationship with somebody, like... like... like [P30] has already said, and then they're being honest with us from the...	C199 - Communication influenced by relationship in the workplace
	Kasia Howley: Yeah.	
P58	P58: There are times where we sort of find out when they're here, like in the studio, and then it's almost like a little bit too late. You're sort of a little bit like, well, I don't know what to do now because we've got this project to deliver at like three o'clock and can't really sort of say to the client, sorry, the vocalist needs to take a week and a half off. Like our schedules are nuts. Our schedules are like, you know, 24-hour turnarounds on stuff.	C45 - Pressure of timescales
P58	P58: Again, sort of really often.	
P58	P58: So like for us, it's like, because they're super quick sessions, it's like.	
P58	P58: doing for the rest of the time anyway, so... and I don't really feel like it's... this just sounds really, like, really archaic. I don't really feel like I've got that level of responsibility for them, because they're literally, like, we're paying them to do, like, an hour. They're coming in and doing whatever they... you know, if they want to go and smoke 20 cigarettes	C61 - Role dependant responsibility
P58	P58: you know, like, whatever, that's not my problem, really, like, it's up to them, but... or maybe that's where I'm going wrong, maybe it is, like, maybe there.	C307 - Self reflection on responsibility to freelancers
P58	P58: sort of sense of a slight sense of challenge in terms of the relationship that we have with our freelancers.	
	Kasia Howley: I suppose it's whether it affects what you're trying to produce in the moment. Do you know what I mean?	
P58	P58: Yeah, but that feels quite selfish. I'd like to think that we had a bit of a better relationship with our freelancers or we're trying to at least encourage a bit of a better relationship where we did have a little bit more of a kind of understanding.	C307 - Self reflection on responsibility to freelancers
	Kasia Howley: Yeah!	
P58	P58: What they were doing before and what they were doing after.	C308 - Desire to learn more around vocal fatigue
	Kasia Howley: And that's what I guess all this is about, you know.	
	Kasia Howley: you would benefit from and what would be beneficial?	
P58	P58: Yeah, I don't know, it's really challenging. It's actually quite a challenging thing I guess!	
P21	P21: In an education setting you're meant to report to someone if you've got a concern about a student's health or	
P21	P21: Safeguarding or whatever it is. Whereas obviously if you're just working with other grown adults that are professionals.	
P21	P21: like you say, it's not none of your business what they're up to.	C307 - Self reflection on responsibility to freelancers

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P58	P58: Yeah, it's tricky, though. It's tricky, because... because although... although some of the, like, you know, some of the people that we work with are, like, you know, in their early 20s, they're, like, just graduated from [university] or somewhere like that, or they're just... they're just starting out on their journey, and so actually, like.	
P58	P58: I look back at my, like, years ago, I won't say how many years ago, but when I first graduated, I knew nothing. Like, absolutely nothing, and actually, I was so influenced by everybody else around me asking me to do stuff, or asking me to do... do you know what I mean? So, I kind of actually sort of wonder whether...	C307 - Self reflection on responsibility to freelancers
P58	P58: We probably should be a little bit more on the lookout for just how they're doing	
P58	P58: Generally, like, across... you know, it's like a text message, isn't it, really? It's like, how many gigs have you done	
P58	P58: recently, how are they going, how's your voice feeling, like, we've got this thing coming up, we'd love to get you involved. Do you know what I mean? It's a little bit more of a general conversation, rather than panic, panic, panic, can you come in for an hour? It's just like... so, yeah, it's really fascinating, it's actually a really interesting challenge that	C307 - Self reflection on responsibility to freelancers
	Kasia Howley: That's a really interesting point.	
P21	P21: I think also that I think they would really appreciate you taking a concern in that sense as well, because that is how they make their money at the end of the day with their voice.	
P58	P58: Yeah, 100%, 100%. It's actually quite a good idea, I think.	
P18	P18: I know my approach to vocal fatigue differs vastly when I'm working with students to when I'm working with a professional cast, because	C64 - Generational differences / Impact of age
P18	P18: Especially with a professional cast there, I have an expectation that they are able to manage.	
	Kasia Howley: Mmm.	
P18	P18: their instruments and their tools, whereas with the.	
P18	P18: Yeah, it's about experience. It's about their experiences behind it as well.	
P18	P18: I... my warm-ups are completely different with those different groups of people as well, because, again, I expect that someone who's working professionally has done some warm-ups prior to seeing me for the group warm-up.	C2 - Importance of a self developed warm up
	Kasia Howley: Yep.	
P18	P18: Whereas students, especially if they've got an 8am vocal call with me, which does happen, ugh,	
P18	P18: That warm up is way more detailed, and I will actually often talk them through my processes so they know what to be looking for in their own voices before we go anywhere.	
	Kasia Howley: Mmh	
	Kasia Howley: Do you feel like if you spoke to the singer about vocal fatigue, do they, do they, do you think they, they monitor vocal fatigue it before it happens or do you think they only realise when it has happened?	
P58	P58: That's a really good question.	
P18	P18: Students have no idea, this is from my experience. Students have no idea until they're like, why can't I sing? And I go, how much have you been singing recently? That might be why.	
P58	P58: I,	
P58	P58: there's one example that I can think of... there's one example that I can think of in particular where,	
P58	P58: It was a case of like.	
P58	P58: Definitely, definitely vocal fatigue from day one, flatly refusing to kind of do anything about it, and just continuing to gig.	
P58	P58: And then do sessions.	
P58	P58: to the point where it was, like, then doctors were involved, I think, at one point, and it, like, got quite to the point where it was just, like, you need to stop. And it's, like, I think that's the thing of, like, it depends on the personality, but most, like, gigging musicians that I know	C309 - Musicians are reluctant to stop
P58	P58: I'm.	
P58	P58: Never wanna... never wanna take two weeks off.	
P58	P58: They just, you know, they just won't do it. It's almost like a kind of... it's almost like a sort of...	C309 - Musicians are reluctant to stop
P58	P58: Again, a sort of snowball effect, I guess. Again, that's quite an extreme example, I guess, but...	
	Kasia Howley: Yeah but good to know	
P21	P21: A lot of students I have are very, they're...	C175 - voice as identity
P21	P21: Their singing ability is very much wrapped up into their identity.	
P21	P21: So it's a matter of pride if they're known as one of the singers of their year group or of their cohort, and all of a sudden they can't sing that day or they're just, I think they spend a lot of time in denial about it. They're like, no, I can do it. I can do it. Because without their belt, who are they? Do you know what I mean?	
P58	P58: Yeah, I think that's a really, really good point. It's so tied up with identity.	
P58	P58: It is for us, though, as well, right. Like, as in, like, we... we are... I introduce myself as a composer more than I do anything else on the face of the earth, you know? Like, it's... it is, like, who we are, and so I think, like...	
P58	P58: It it that makes sense, I I.	
P58	P58: I do think, though, it is also about education, right? Like, again, like, coming back to not having a name for it until we started this process. Like, I think it's almost like...	C207 - Education for music producers and musicians can enable more productive sessions
P58	P58: education and sort of letting people know that that's probably what is going on here. Because I remember at [university], nobody talked about	
P58	P58: exhaustion, or, like, mental health stuff, or vocal fatigue, or anything. It was just, like, just go, go, go, go, go, go. Do you know what I mean? There was just nothing like this around then, at that point in time, any at all.	C81 - Importance of vocal fatigue education within training
P30	P30: Yeah, I think you can tell the ones that are being professionally trained and the ones that haven't.	
P30	P30: Like, but I also think a lot of younger singers	
P30	P30: know how to look after the voice better. Like, there's a girl I work with, she always brings vocal zones in. I mean, I keep some in now, anyway. I think vocal zones, them sweet things.	C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?) C46 - Reliance on word of mouth advice
	Kasia Howley: Yeah, yeah.	
P30	P30: Yeah, I don't know, I guess it depends.	
P30	P30: There's a lot of, like, I don't know, a lot of the singers I work with aren't really, like, trained classically, so they're a bit more rock and roll.	C39 - Stylistic vocal demands
	Kasia Howley: Yeah, but it's just as important for them!	
P30	P30: Yeah, yeah, definitely.	
P21	P21: I think possibly commercial singers and pop singers wouldn't have been...	
P21	P21: like you say, been educated in the same way about, like, as in musical theatre training, they know about it from day one, because their singing teachers will talk to them about it. If you're a self-trained rock singer.	C310 - Differences between music and musical theatre vocal training
P21	P21: Then you wouldn't, it wouldn't be in your.	
P21	P21: Vocabulary anyway, it wouldn't occur to you that that might be what it is.	
	Kasia Howley: Mmm.	

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P58	P58: Yeah, I think it's almost like a generational thing as well, isn't it? Because I'm sure that, like, when you get to a certain standard, like, even for you, [P30], like, working with bands and stuff like that, when you get to a certain standard, it becomes...	C64 - Generational differences / Impact of age
P58	P58: like, slightly more important somehow. We slightly... you notice issues...	
P58	P58: quicker, or it just becomes, you know, slightly more kind of underlying thing. But actually.	
P58	P58: it's got to start somewhere, hasn't it, really, I guess? It's almost like got a... you	
P58	P58: Sort of new generation of students, or whatever, that effectively are probably, you know, hopefully going to grow up knowing a little bit more about what that	
P58	P58: what this is, and how to sort of deal with it, you know, and I think that's a really good thing, because then when they get to the stage where they're in with us	
P58	P58: hopefully, at some point in the future, you know, they've got a much better understanding of how they're looking after their own voice. And I think the thing that we forget is that, like, and this always blows my mind about vocals, is that it's literally like a body thing, isn't it? It's like, it's not quite the same as sort of playing a piano or...	C221 - Voice compared to an athletic instrument
P58	P58: playing an electric guitar, I mean, it literally is like a muscle, and so it sort of feels like it's... there's a way more... there's so much more of a physicality with it.	
P58	P58: I think than with other stuff, or at least that's my sort of... And.	
P58	P58: Take on it a little bit.	
	Kasia Howley: Yes.	
	Kasia Howley: That's really interesting.	
P21	P21: It's more personal	C176 - importance of sensitive communication around the voice
P21	P21: I'm just agreeing it's so much more personal. If I go sharp playing my clarinet, it's like, oh, it's a clarinet	
P58	P58: Okay.	
P21	P21: If you go sharp and you're singing, you're like, oh, it's so embarrassing	
P58	P58: Yeah, yeah, definitely. It's like, it's so, it's so engrossed.	
	Kasia Howley: So lets move onto the next bit of the, group, so I've been creating this guide, in the last module I developed it. It's backed by research, it's backed by the way people learn, cognitive development, colours,	
	Kasia Howley: And the research that currently out there on vocal fatigue, to create this sort of guide that is still being refined.	
	Kasia Howley: So I know I sent it through, but I know everyone has incredibly busy lives,	
	Kasia Howley: So I'll just drop in here again, so you can have a little look, you should be able to zoom in, and I'll just do that for a few minutes and then I'd love to know any opinions you've got, thoughts on it, if you've found anything out from it, that sort of thing!	
	Kasia Howley: I'll just turn my camera off while we do that, and then I'll bring it back on when we know we're good to go again	
	Kasia Howley: Hello. So, if anyone has any thoughts on it, I can flick back and forth through the pages too!	
P21	P21: I find it all really interesting.	
P21	P21: I'm baffled by a lot of it, but I do find it all interesting. I think the thing that,	C76 - New and thought provoking information
P21	P21: I... Do you mind going back to page 3?	
	Kasia Howley: Of course.	
P21	P21: Okay.	
P21	P21: I think, obviously, I'm coming at it as...	
P21	P21: Working with students, I would just be... cautious of them.	
P21	P21: Having one of this and then going, I've obviously got vocal fatigue.	
P21	P21: You know what I mean? So, like, because they could have discomfort in their neck from a jazz class, so I think it's really important that they...	
P21	P21: Yeah, exactly. So I think the more...	
P21	P21: Yeah, the more details they have and the more they can cross-reference all of this to try and figure it out themselves, it's just really helpful.	C81 - Importance of vocal fatigue education within training
	Kasia Howley: That's good.	
P58	P58: Yeah, I think for me, like.	
P58	P58: visualizations and simplicity is, like, really key with this sort of stuff, so I kind of...	
P58	P58: I I'd like for.	
P58	P58: almost like the people that want to get geeky about it, it's, like, really kind of cool, but I just wonder if, like, for...	
P58	P58: Singers, it's almost like having, like, a little bit of a, like	
P58	P58: less is more versions, you know what I mean? Like, almost like a kind of overview type thing, it's just like, here are the things to watch out for, here's what you can do about it.	
P58	P58: This is great for, like, this is great for us, like, I really love, I really love this, like, kind of level, but from a point of view of, like, if I was going to give something, someone something, like, as.	C256 - Suggestion for a specialist and general version of the guide
P58	P58: Just a little, like, here's my card, and here's a vocal fatigue card.	
	Kasia Howley: And I guess that's, like, a good point which leads on to, is it something that you would have for yourself to understand it more, to then be able to share little bits, or to hand out?	
	Kasia Howley: Do you know what I mean?	
P58	P58: It's a bit of both for me really, probably 50/50 for me.	
P30	P30: I'd love to know more about it all. I find it fascinating as well, particularly how the throat works and how it.	C308 - Desire to learn more around vocal fatigue
	Kasia Howley: Yeah.	
P21	P21: Mmm.	
P18	P18: Yeah, me too.	
P21	P21: Nice to have a little poster version!	C242 - Suggestion for interactive and other formats, such as quizzes, ads or digital links to helpful aids
P18	P18: That's what I was thinking. Nice to have up in a room where you're doing lots of rehearsals.	
	Kasia Howley: I guess it's just breaking it down because it is so multifaceted as a condition that it's yeah it's trying to find a way to communicate that.	
	Kasia Howley: In a way that you're still not changing the terminology. Yeah, so it's good to know what you think about it	
	Kasia Howley: Whether you find the scientific bit beneficial?	
P21	P21: I think it is, because I don't think it needs to be dumbed down, because like you say.	
P21	P21: this is what it's called.	

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	Kasia Howley: And is there anything on there that has solidified something you knew before? Or is there anything that has, taught you something new? That would be good to know.	
P18	P18: It's brought home the whole idea of like the environment that they're singing in and how that can make a difference. I mean, I have this conversation with students because they do a lot of one to one singing in small rooms or they sing in their bedrooms and when they come to me, there's something in a much bigger space.	C178 - Environmental conditions contributing to vocal fatigue
P18	P18: And I often have that conversation about going.	
P18	P18: how do we sing in a bigger space? Suddenly you're working in a different acoustic environment. And so I have that conversation a lot.	
P18	P18: Yeah, and so that sort of brought that home for me, because I always forget.	
	Kasia Howley: You've made a good point there as well in a way that, does it need to be challenging environments or does it just need to be environments actually?	
P18	P18: Or just even different, different environments.	
	Kasia Howley: Yeah, that's a good, really good point. Thank you. That's really interesting!	
P18	P18: And the other one is because, like, a lot of a lot of people sing in their cars, and I always go, that's a difficult that's an interesting environment because you've got so much absorption materials that are absorbing your voice, and they can sometimes push in that environment.	C178 - Environmental conditions contributing to vocal fatigue
	Kasia Howley: That's a really good point. Yeah, I think that is a really good refinement on that environment section.	
	Kasia Howley: Yeah. Is there anything that you guys, like, learnt from it that was different and new that you didn't know before?	
P21	P21: All of this biology, I had no idea!	
	Kasia Howley: Okay.	
P58	P58: Biophysiological, I don't think I've ever heard that word before in my entire life.	C76 - New and thought provoking information
P58	P58: So I feel like I'm now gonna use... usually what I do is adopt	C76 - New and thought provoking information
P58	P58: adopt the words that I don't fully understand and just start using them in everyday language. But yeah, no, I think,	
P58	P58: I was gonna say just one thing real quick. Yeah, please. I think it's really interesting to kind of hear from people, like, in education as well, because it makes me wonder how many of the singers that we work with are actually getting, like, proper lessons, like, technique, like, you know, really sort of...	
P58	P58: sort of deep... like, if they're professional... because I think there's almost, like, this sort of weird thing... I mean, there is with me, like, even from an instrumental point of view, you sort of reach a point where you're just	C202 - Singing lessons as an aid for vocal maintenance
P58	P58: to do lessons anymore, you know, it's almost like a child, I think. So, whereas actually, I think this, like, technique stuff is really crucial. I have no idea, I think, I... apart from maybe one, I don't know any... whether any of the, like, 10 or so vocalists that we work with regularly are actually getting...	
P58	P58: Proper lessons.	
P18	P18: As someone who works at multiple different education facilities, the difference of the technique training that students are getting.	
P18	P18: And they're walking out with the same...	
P18	P18: They're all walking out with a Degree. Yeah, that's what they all walk out with. But the quality of that Bachelor of Musical Theatre is very different depending on the institution that you're at. I know one where they don't get technique lessons for two of the three years.	C87 - Fluctuation of contact singing time within training
P58	P58: Yeah, yeah, that's really interesting	
	Kasia Howley: Yeah, and I think it kind of, this next question kind of adds on from all that. Where do you think this could be beneficial in the world? So that could be where it could be beneficial for you, where you think it could be beneficial for those you work with?	
	Kasia Howley: Is there any way you think it could be used in the professional voice field in whatever capacity?	
P18	P18: It's really useful in the education world, but I think also, like, getting this out to musical directors, because this is incredibly interesting to me, and I know that I sometimes get approached to vocal coaching or audition prep for professional people who want to just get run through numbers.	C107 - Need for preventative education within training
	Kasia Howley: Mhm.	
P18	P18: And I...	
P18	P18: If I had this that I could have and then hand out to them, not necessarily to run it through, but like, hey, have you heard of this? And what do you know about this?	C172 - Recommendations for MD's engage in extra knowledge development
	Kasia Howley: Yeah, yeah.	
P18	P18: Potentially interesting.	
P30	P30: Yeah, I think anybody that's trying to make a career by using the voice need to know this stuff really.	C282 - Beneficial for anyone working with voices or using their voice
P58	P58: Yes.	
P21	P21: I think it's really important for somehow for individuals to get hold of it themselves as well, because there are	
P21	P21: so... there's, like, no regulation when it comes to singing teach... private singing teachers. Literally anyone can just decide to be a singing teacher, and they could be doing all manner of damage. So...	
P58	P58: Yeah, somehow to get...	
P21	P21: this into the hands of individuals so they know it for themselves. Adults, I mean.	
P18	P18: I mean, but that's also evident when we say there's no regulation. How many people are on TikTok giving	C122 - Incorrect information surrounding vocal health on social media
P18	P18: Technical advice who you don't know what their background is and yep.	
	Kasia Howley: Amazing. Well, before I stop recording, does anyone else have anything else to share about?	
	Kasia Howley: Everyone okay for me to stop the recording?	
P58	P58: Yeah sure	
P18	P18: Yes	
P21	P21: sure	
P30	P30: yeah cool	

Focus Group 2 - Musical Theatre Performers / Students
(P4-S/G, P28-S/G, P41-MTP, P42-MTP)

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
FOCUS GROUP P28 - Musical Theatre Student P41 - Musical Theatre Performer P4 - Musical Theatre Graduate P42 - Musical Theatre Performer	Kasia Howley: So, if we could just go around to start, and if you can just tell me, you can introduce your name if you'd like, and if you could describe how you use your voice in the professional world. So, if that's as a performer, a student or other. Whoever would like to begin!	
P41	P41: Okay, hi, I'm [P41]. I use my voice as an actor, a director, and a teacher.	C9 - Multiple Professional Roles
	Kasia Howley: Wonderful!	
P28	P28: Hi, I'm [P28], I'm currently, I'm going into my third year of drama school training in September, so I'm using my voice as a student, but looking to use it as a professional.	
	Kasia Howley: Wonderful.	
P4	P4: Hello, I'm [P4]. I've just graduated drama school. So yeah, similar to [P28], I'm like just fresh, use my voice as like a fresh student just out and then eventually as a professional actor.	
P42	P42: Hello, I'm [P42]. Sorry about the humming. I use my voice as a professional musical theatre performer and as an actor as well.	
	Kasia Howley: Amazing! So the first question is essentially just, in terms of vocal fatigue, if someone said those words to you in your profession, what does it mean to you? That could be a definition, how it makes you feel, anything!	
P4	P4: I think,	
P4	P4: For me, it's just the inability to use your voice as you normally would at your peak, so anything that it feels harder to do	C120 - Increase in effort required to produce sound
P4	P4: then... When you're at the top of your, top of your game doing it.	
P41	P41: Yeah, I'd agree, any sort of, like, thing that feels like swelling, tiredness, like, lack of range,	C13 - Feeling tired C271 - Feeling of swollen vocal folds C16 - Reduced vocal flexibility
P41	P41: Less mobility in your voice or	
P41	P41: Less stamina, I guess, is all the things I would feel with vocal fatigue.	C283 - Less vocal stamina when vocally fatigued
P28	P28: Yeah, I would agree too. I'd say very similar things. I think sometimes if I've been using my voice a lot, whether that's because of like a rehearsal or because I've been speaking a lot, it can sometimes feel like a bit dehydrated as well, or like I was feeling a bit unwell at the start of this week.	C284 - Overuse of voice C88 - Vocal fatigue presenting as dehydration
P28	P28: Which did affect my voice a bit as well, so anything to do with that.	
P42	P42: I agree with all of the above.	
	Kasia Howley: Great	
	Kasia Howley: Do you feel like there's a shared understanding of the term in the industry? So that could be as students, that could be as professionals, that could be people you're working with, so, if you're working with MDs, different people that come in, do you feel like it is a shared term?	
P41	P41: Like, amongst creatives and actors? I don't think... I don't think always, no. I think you have some MDs who...	
P41	P41: are what I would call more, like, vocal conscious, but not all... not always with the correct terminology or understanding of what exactly it is that they're...	C171 - Variation in Musical director vocal health knowledge
P41	P41: trying to work around. But I think when you describe vocal fatigue, the kind of things that creatives will throw at you is, like, have you steamed? Have you got your nebulizer? Is there anything we can do to help you leading up to the show? But there's not really much spoken about in terms of, like,	C58 - Seeking immediate relief
P41	P41: needing time, or vocal rest, and actually the implications of vocal fatigue, and the effects that that can have on the show, long-term or short-term, and that kind of thing. So I would say that I think that a lot of creatives	
P41	P41: don't actually understand what vocal fatigue is, unless they're a singer themselves. I think they just put it down to, like, your voice is feeling a bit tired.	C285 - Simplified perceptions of vocal fatigue
P41	P41: But not actually understanding the implications of what that means.	
	Kasia Howley: Yep.	
P28	P28: Yeah, I'd say really similar to [P41]. I feel like when people are feeling tired vocally, it's normally like, oh, my voice is a bit sore or I feel a bit tired rather than experiencing like vocal fatigue specifically. And I think there is definitely a difference there because with dance.	C285 - Simplified perceptions of vocal fatigue
P28	P28: People do go on dance rest or they have an injury and I feel like that's more of a, more commonly used term rather than having, like, referring to it specifically as vocal fatigue.	C106 - Difference between injury in dance and the voice
	Kasia Howley: Yep.	
	Kasia Howley: Do you feel like they discuss it but maybe not use the same terminology?	
P28	P28: Yeah, I feel like...	
P28	P28: like, we do, like, voice rest if you're feeling tired, which is, like, not using your voice at all in order to get better. And we have done a lot of, like, discussions about it at	C104 -Vocal Rest
P28	P28: At college but maybe like having it more of it if it became more of a.	C106 - Difference between injury in dance and the voice
P28	P28: Commonly used term like being on dance rest.	
	Kasia Howley: Yes.	
P28	P28: Like vocal fatigue was something that people were aware of more or could refer to more easily.	
	Kasia Howley: Yep.	
	Kasia Howley: Thank you.	
P42	P42: I do kind of agree that there's this the	
P42	P42: Especially when I was back at college, it was very,	
P42	P42: The same with what you were just saying about dance, where it's like, if you start to feel that something's, like, niggling.	C106 - Difference between injury in dance and the voice
P42	P42: Yep. Like, on your body, that they're very, like, oh, okay, well, make sure that you're doing stretches, and make sure that you're doing this, and rest that, and make sure you do that. And there seems to be a lot more, like, physical body stuff, where they're like, oh, we	C106 - Difference between injury in dance and the voice
P42	P42: a serious injury, because otherwise it'll turn into something worse, whereas I feel like...	
P42	P42: With the voice, it's, it feels like people either do	
P42	P42: that kind of bare minimum thing where they're like, oh, my voice is a bit tired today, and they're just like, oh, just steam it and just do... just do these little bits. But then, there	
P42	P42: the only extreme that people ever seem to go to is, like, oh, just, like, don't speak for the day. Yeah. And then it's as if, like, that is some... as if, like, if you were	
P42	P42: Had an injury and they were just like just don't dance for a bit that then it would be fine whereas sometimes that makes it worse because then it's.	286 - Voice rest given as a common strategy but not always relevant
P42	P42: It sort of is locking in what the injury is.	
P42	P42: Whilst you're resting, rather than being like, oh, you need to work through that to make sure that everything comes out healthier at the other side.	
	Kasia Howley: Good point.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P4	P4: Yeah, I think the point about the dance compared to, compared to vocal fatigue, like, in drama school, I think it's way more taboo, like, the idea of vocal fatigue and...	C161 - Stigma around vocal health and fatigue
P4	P4: it's like... you just expect it to... I mean, for me, you always wanted to just push on and just be, like, not be a... like, a bit of a pain. It always felt a bit like...	C288 - Fear of being viewed as difficult
P4	P4: like, I'll just... you just need to get on with it. Whereas dance... I think it's the same idea as, like, mental and physical health.	
P4	P4: Like, physical health... physical health is... everyone knows the exact steps.	
P4	P4: to do, but then mental health is a bit more like, do you just... like, it's a bit more open, and I think it's kind of relatable to the same boat in vocal fatigue and dance fatigue.	C287 - Comparison of physical and mental health to vocal fatigue and dance fatigue
	Kasia Howley: Yeah, really good point. And in terms of, vocal fatigue, how do you individually all recognise it? Do you recognise particular changes in your physicality? Is it audible? Do you feel it? Could you just tell me about your experiences with it?	
P28	P28: Sorry, I had one more thing to say about the last point. I think as well, really similar to what everybody's just said, with a physical injury, really similar to [P4] it's really easy to physically identify it, like if there's bruising or swelling or like you can go to physio and	
P28	P28: There are a lot of people training, specifically.	
P28	P28: identifying what that injury is, and there's a lot of awareness about how to deal with specific injuries.	
P28	P28: I think it is more challenging as well to help with vocal recovery because it's really specific to the individual and it's more challenging to be able to.	C289 - Every voice experiences fatigue in a unique way
P28	P28: see specifically what it is that each individual person wants.	
P28	P28: Yeah, and as well, it's like you have, I think you have to spend a lot of time learning about your own voice.	
	Kasia Howley: Yep.	
P28	P28: And understanding what you need and where you tend to.	
P28	P28: You know, find things challenging in order to know how to help it more in the future.	
	Kasia Howley: that's a really good perspective.	
	Kasia Howley: So if you kind continue from that, how would you experience vocal fatigue yourself? Are there any signs that you in particular notice that happen to you?	
P28	P28: Yeah, generally I feel like my voice can get tired quite easily, yeah, my voice tends to be a little bit.	
P28	P28: like, not hoarse, but maybe a bit huskier, and sometimes my voice does go a bit deeper as well, if I do start to feel vocally tired. Sometimes I'll get, like, a bit of a cough if it is a sore throat or something like that.	C155 - Audible signs of vocal fatigue
P28	P28: But yeah, generally I just feel a lot less power in my voice.	C290 - Lack of vocal power
P28	P28: But it can depend. Sometimes it will affect, like, a headier thin fold register more. Sometimes it affects a chesty register more. Like, it's kind of weird. Like, sometimes if I have a cold.	C295 - Different vocal qualities are effected by vocal fatigue
P28	P28: I can sing quite well in my head register, but my chest register feels the brunt of it. Yeah. So yeah, that's how I sort of feel. Yeah.	C291 - Vocal fatigue manifests in a variety of ways
	Kasia Howley: Okay.	
	Kasia Howley: Anyone else on how they experience it?	
P41	P41: I think it depends for me on what's causing the fatigue like I get quite bad acid reflux so I can always tell when that's coming and like the way that it affects my voice is more like I can feel it but it's not audible.	C292 - Acid reflux C293 - Vocal fatigue not always audible
P41	P41: And then I would say, like, when it's down to, like, fatigue from, like, overworking or singing too much, that's when I would start to feel, like, swelling and notice, like, an actual shift in my range.	C271 - Feeling of swollen vocal folds
P41	P41: And then I'd also say, like, when I'm, like, physically tired from doing an eight show week, even if I don't necessarily think I've oversung, that muscular tension and, like, body fatigue makes everything sort of feel a little bit more effortful and, like, I have to think about the cogs turning a bit more, like, where am I going to place it and when and what.	C1 - Demanding schedule C294 - Vocal fatigue manifesting as muscular tension C38 - Adapting vocally when tired
	Kasia Howley: When you say you feel the swelling, how would you articulate that?	
P41	P41: I guess, well, A, in effort level of, like, achieving things, B, I would say that even just, like, when I'm swallowing, like, the.	C120 - Increase in effort required to produce sound
	Kasia Howley: Yes.	
P41	P41: Like, generally, just like... Difficult.	
P41	P41: difficult, yeah, I don't know, that's a really good question. I think it would be on sensation of what I feel in my...	
P41	P41: throat, which is crazy, because obviously I can't feel my vocal folds, but, I think it's that, like, mental capacity of, like, being overly awareness, overly aware, I guess, and again, having to place things in a slightly different place, because it's more breathy and airy in certain areas when...	C271 - Feeling of swollen vocal folds
	Kasia Howley: so the closure as well?	
P41	P41: Yeah, the, yeah, closure. And I think I, for me personally, I always tend to notice that more in like a belt quality, whereas my mix and my head voice tend to be.	C295 - Different vocal qualities are effected by vocal fatigue
	Kasia Howley: Yep.	
P41	P41: Okay, but I would say they're more muscularly strong anyway, and less.	
P41	P41: Fatiguing on my voice in general.	
	Kasia Howley: thank you.	
P4	P4: Yeah, I mean, for me, it's similarly, I feel like a... Like, an aching	
	Kasia Howley: Yep.	
P4	P4: Sensation and everything in like my jaw and then even like these bits on the sides is kind of all this like muscular system here.	C89 - Sensation of tightness around tongue and laryngeal region
	Kasia Howley: Yes.	
P4	P4: And then, yeah, it just affects my whole high range.	C16 - Reduced vocal flexibility and range
P4	P4: And everything becomes, like, you can't...	
P4	P4: especially in head voice, like, when I'm trying to siren, it will just, like, stop, and then you get really, like, and you're trying to... trying to get it to work, but... but yeah, it's... I think that's the main thing, just the aching and...	
	Kasia Howley: Yes.	
P42	P42: I'd definitely say that I'm... I'm quite, like, a muscle memory performer in terms of, like, I will...	C296 - Habitual vocal habits to measure vocal fatigue
P42	P42: I will not,	
P42	P42: Like, I will barely remember a show until I'm, like, in the space, and then suddenly I remember everything about what's happening. Yep. And I feel like, like, the characters and the voices sometimes are so, like, muscle memory that...	
P42	P42: I actually, like, can't really do them when I'm not in the space sometimes, and I'll be like, I don't know what that person sounds like. But then as soon as I'm in the space, I'.	
P42	P42: But then it makes me notice more.	
P42	P42: when I'm... when it's not there, because I... because suddenly I'm conscious of, like, oh, I'm really, like...	
P42	P42: I'm really thinking about where I'm having to put that character today, or I'm not... that character isn't speaking...	
P42	P42: As high as I would normally speak.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P42	P42: And.	
P42	P42: and I think sometimes I... it...	
P42	P42: it's like a trickle-down of something might happen outside of work, where I've maybe, like, just been touching where I would speak as that character.	
P42	P42: and then it either helps me, and sometimes I come in and I'm like, oh, I'm really warm today, like, that character is so easy, and then sometimes it will be that it's actually a knock-on where it's actually harder, and then I'll start doing the character and I'm like, oh, this is... this is, like, a lot of effort for me to try and, like.	C296 - Habitual vocal habits to measure vocal fatigue
P42	P42: keep this character's voice where I want it.	
P42	P42: And then having to sort of shift it during the show to either be like, okay, the character can't talk like that today, so I'm going to have to speak like this, or it slowly starts to work back in and then I can kind of find it and go like, okay, I can find it, but I'm very consciously like putting in a bit more effort with how they're having to speak.	C296 - Habitual vocal habits to measure vocal fatigue
	Kasia Howley: That's interesting. So you perceive it from basically repetition? and then not being able to sort of replicate the sound you expect?	
P42	P42: Yeah, absolutely, yeah. Because then it's... especially... I've definitely felt that more in...	
P42	P42: now that I'm doing sort of my first play, I've felt that, I've noticed that way more, whereas I think when I was doing musicals.	
P42	P42: you I it was obviously the singing that made me go like oh it's a bit.	
P42	P42: Oh, it's a bit tight to try to sing that. And I didn't really clock on that the characters were being affected by it, because I just would be like, oh, I need to think about when I'm singing this bit. Whereas I think now that I'm not doing any singing in a performance.	
P42	P42: I've then noticed...	
P42	P42: and I'm like, oh, actually, the characters are kind of being affected, because there's no, like, we do no singing whatsoever. So, like	
P42	P42: I'm fully just talking and using my voice for the entire thing, and it's that kind of, like, you don't really get a break, because...	C8 - High vocal workload
P42	P42: as much as, obviously, it's the same voice, but, like, singing, I put it in a different place, because that's then how the character sings. Whereas, like, not having any singing, I don't get...	
P42	P42: I don't get to sort of gear shift and.	
P42	P42: move into my singing voice, and then, okay, now I can speak in the character voice, I'm just speaking, which then makes me go, like, oh my, like, this is more effort today, like, oh, it's tighter, or...	
P42	P42: Like, I can't, like, hold the character where I want them to speak, or... Yeah.	
	Kasia Howley: No, that's a really interesting perspective.	
	Kasia Howley: Thank you.	
P42	P42: Welcome.	
	Kasia Howley: Is there an experience you can reflect upon? So that's when you were maybe in a show at college, in a rehearsal process, or anything in the professional world	
	Kasia Howley: Where you've you've experienced vocal fatigue and how it made you feel and how it affected you in the space?	
P4	P4: Yeah, for me, when... it was when... when you're rehearsing for a show in the studio, it's... and then when you move into tech, and you're in the actual theater, and...	
P4	P4: Haze... Haze, I think... like, scientifically, it doesn't actually...	C297 - Vocal health misconceptions taught through training and professional environments C178 - Environmental conditions contributing to vocal fatigue
P4	P4: it's not meant to affect you but I think the like the image of it being smoke and then you're like the space feels again so much bigger so you're having to push everything.	C297 - Vocal health misconceptions taught through training and professional environments
	Kasia Howley: Just on that, were you told then that scientifically it doesn't effect you?	
P4	P4: I don't know, well, we were taught it was just	
P4	P4: Water particles, like, it's been.	C297 - Vocal health misconceptions taught through training and professional environments
	Kasia Howley: Interesting. And is that something you got told at drama school?	
P4	P4: Yep.	
P4	P4: Yeah, yeah, and just, you're having to, everything's having to be bigger. Yeah.	
P4	P4: I thought after, because especially in tech, you do things over and over and over again.	C184 - Reducing unnecessary vocal load within rehearsals
P4	P4: And I found...	
P4	P4: having to do those things and you're pushing yourself to do it way more than you did the past like however many weeks in the studio.	
	Kasia Howley: Yeah.	
P4	P4: And then you get into the fourth time and it's like, it's just getting worse and worse. And it just, it makes you feel like, it's just disheartening.	C127 - Vocal fatigue causing stress (emotional impact)
P4	P4: then it puts you into mind, I'm gonna have to do this, like, maybe twice a day for a week	C127 - Vocal fatigue causing stress (emotional impact)
	Kasia Howley: So it almost like stresses you out before you actually get to the performance.	
P4	P4: Yeah.	
	Kasia Howley: That's a really interesting perspective.	
P41	P41: I have a few. But just off the back of the dry ice conversation, I find it fascinating because even in the West End, they love to tell you that it doesn't affect your voice.	C297 - Vocal health misconceptions taught through training and professional environments C178 - Environmental conditions contributing to vocal fatigue
P41	P41: It's my favourite conversation to have. And I did a production of [regional musical] where we had these, like... they were, like, fridge containers that they...	C297 - Vocal health misconceptions taught through training and professional environments
P41	P41: pumped full of dry ice, and we had to stand in them whilst they were pumped, and so that when we exited, it was like the dry ice would all flow out, and it looked great visually with the lights. And the amount of, like, dehydration...	C297 - Vocal health misconceptions taught through training and professional environments
P41	P41: that those things cause. And I'm like, no, it might not be causing vocal damage.	
P41	P41: by the chemicals that are in it, but it is dehydrating me, and it's making the show more difficult, and if I'm doing that at the top of a 3-hour show, where I haven't then got 2 hours to rehydrate my vocal folds, it's definitely a problem. And it's increasingly becoming more of a problem,	C297 - Vocal health misconceptions taught through training and professional environments
P41	P41: And like, I just have this habit of seeming to work with creatives who just love dry ice to do the work for them. And so, yeah, that's, I find that tricky.	
P41	P41: But my vocal fatigue story, in brackets, stories. So I did a production of [regional musical], and it was, like, coming out of COVID. And I got COVID quite badly.	
P41	P41: And there was a lot of pressure for me to perform because at the time that I got COVID, it was like tech and previews into press night.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P41	P41: And I was basically down for the count for, like, at least 10 days of, like, actually being sick, and that was before I got into the period of time of, like, needing to recover from being sick, which always seems to be a bit that everyone misses out. It's like, you're sick, you're well, so come back, but actually you're still dealing with the aftermath in your...	C298 - Misunderstanding of post illness recovery time
P41	P41: Voice of like what that has caused and yeah and I think there is a lot of pressure in the industry that when you're feeling vocal fatigue to return to the job as quickly as possible before you're ready and because there is a lack of understanding, a lack of knowledge, lack of training, and lack of empathy to be honest about what it is that a singer is dealing with when they've got vocal fatigue, I think there's a lot of pressures from not only like	C68 - Pressure to push through
P41	P41: people creatively, but people, like, higher up in, like, production offices, who never meet you, never see you, don't understand the voice at all. And...	C299 - Lack of understanding from authoritative figures
P41	P41: then there's, like, the anxiety and fear, I think, that you put on yourself to return to work, which, in turn, your acid reflux increases, everything closes up, your muscles are more tense, like, it...	C25 - Feeling obligated to perform
P41	P41: Elongates the process of getting back to work.	
P41	P41: And that was probably one of the first times that I returned to work prematurely.	
P41	P41: I'm usually quite good at refusing to do it, but there was just a lot of, there was a lot of pressure on that particular job,	C68 - Pressure to push through
P41	P41: And I was dealing with the aftermath of that for probably a good like 6 to 7 months afterwards, and even though I didn't have any vocal damage and there was nothing showing up on a scope, like the chronic fatigue that came after that to recover from what really should have just been 10 days off, probably another week of	
P41	P41: vocal rest and recovery, and then I'd have been fine and back to work, working fit. And if I'd have, you know, rolled my ankle, or pulled a muscle in my back, or dislodged something, they would have given me those two weeks to recover.	C106 - Difference between injury in dance and the voice
P41	P41: But because it was my voice and they can't see it and they can't touch it and they can't feel what I'm feeling, there's always that pressure to.	
P41	P41: To return...	
	Kasia Howley: How did it make you feel on stage when you were dealing with it?	
P41	P41: oh god, awful. Whenever anyone says to me they've seen that production, even now, it gives me hives. I'm like, I...	
P41	P41: It was awful. Like I couldn't do my job properly. I couldn't work as an actor. Like when they like teach you a drama school, that thing of like whatever it is that's like 80% character, 20% actor in your brain. It was like 100% me in my brain. There was no acting going on because you're constantly like trying to navigate what you're feeling. You're second guessing what everyone's hearing. You're second guessing what you're hearing. You also don't know what's going to come out. So you've got no.	C300 -Vocal fatigue affecting ability to perform
P41	P41: Virtual control over the sound.	
P41	P41: Yeah, complete lack of control, complete anxiety,	C119 -Lack of vocal control C28 - Feeling of constant anxiety due to fatigue
P41	P41: and just not able to do your job to anywhere near the best of your ability. And as I say, like, even now, when people tell me that they saw that job, I...	
P41	P41: Honestly, like, I don't even, I think it might not even be on my CV anymore, like, because I then spent the rest of the run dying from vocal fatigue, and I'm like, it was crazy boots.	
	Kasia Howley: So it's almost still affecting you now mentally after it?	
P41	P41: oh my god, yeah, the anxiety that I think about when I think about that job. But the only saving grace is I will now never, ever sing if I don't want to. So I'm the first one to put down my tools and say, please let this cover have their debut, I'm out. Like, it's not,	C28 - Feeling of constant anxiety due to fatigue C301 - Long term psychological effects of vocal fatigue
	Kasia Howley: Not pushing through.	
P41	P41: No, it's just not worth it, and like, especially when you're on these jobs, when they're paying you pennies for lifelong fatigue, I'm not interested. £500 is not worth the next 25 years of my career	
P41	P41: Do you know what I mean? Even though they really like you to believe that it is. I don't know if you know, but I'm passionate about this and the way that it went down. Yeah, so I it's awful. Actually, it's just straight up awful. And having to trying to articulate that to people who don't understand, you know, you often get words that are thrown at you that are like, you can't, you can't hack it. You don't have the stamina. You're not professional.	
P41	P41: or being difficult, all of these things, just because you're advocating for yourself, and I think what it just lacks is education, to be quite honest.	C81 - Importance of vocal fatigue education within training
	Kasia Howley: wow! Thank you!	
P28	P28: So at college not drama school college.	
P28	P28: college, when we would be doing productions, sometimes, like, I went to a performing arts college, so there were a lot of students there, and	
P28	P28: out of the students who did study, not as many of them went on to go to drama school. Lots of people went on to go and do different things, but sometimes people weren't as enthusiastic in, like, the ensemble singing, and	
P28	P28: Especially, like, in terms of, like, vocal dynamics and...	
P28	P28: and things like that, when there's a demand from the MD, not like a demand, but a request for it to be a certain quality, sometimes, even if I was feeling vocally tired, I would have felt pressure from some people.	C68 - Pressure to push through
	Kasia Howley: Interesting.	
P28	P28: carry the weight.	
P28	P28: And it was difficult, because... I felt like if I go up and say like	
P28	P28: Oh, I'm feeling a bit tired, so I can't go as full out.	
P28	P28: I feel like I'd	
	Kasia Howley: Yeah, what response would you receive from that?	
P28	P28: There.	
	Kasia Howley: Mmm.	
P28	P28: They'd be like I don't even know, it could, they could be like, okay, but, or like.	
P28	P28: Right, but it's more like there would be, it would be loaded with judgment and.	C97 - Potential judgement due to vocal fatigue
P28	P28: Frustration and it's like there was not a pressure but like the expectation put on me to then but that was a completely different environment to what.	
P28	P28: How that would probably be treated in a professional working environment.	
P28	P28: But also like it's, it's.	
P28	P28: It should be...	
	P28: People should be taught from a young age the importance of looking after your voice properly, which I feel you usually are again with like dance because it's, it's more visible and it's more spoken about.	
	Kasia Howley: Yep.	
P28	P28: But definitely, like.	
P28	P28: From that sort of perspective, studying younger and a more recent experience, it's not necessarily vocal fatigue, but	
P28	P28: When I was doing my third year show auditions, basically they did like them in a block. So I did three different auditions in a day and I started off with a contemporary kind of vibe. Then I went into a character comedy audition in my own accent, which is challenging because it's quite a heavy.	C85 - Vocal training demands
	Kasia Howley: Mmh.	

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P28	P28: placement, and then I went on to sing legit at the end of the day. And it is tricky, like, warming up. I think it was at about 9 o'clock in the morning, and then having the last slot of the day was at, like, 4pm.	
P28	P28: That is quite a unique experience, and I don't know how it would translate in a professional setting, but I know that coming up with third year, I'll be doing classes in the morning and then productions on an afternoon.	C85 - Vocal training demands
	Kasia Howley: Yep.	
P28	P28: And being able to sustain my voice.	
P28	P28: Throughout the day.	
P28	P28: is	
P28	P28: I think is challenging, and making sure that you're doing the right things to make it, make sure that you're okay for the next day as well.	
	Kasia Howley: Yep.	
P42	P42: Kind of similar about,	
P42	P42: Not like, picking up the... not like picking up the slack of somebody else, but we... the musical that I did recently, we had... we went through, like, a chunk of time... I said chunk, the contract. We only did one week where everyone was...	
P42	P42: We had the full cast on stage, and it was for 2 months.	
P42	P42: and it was there was we got to a point where so many people so many of the main like characters of the show	C67 - Cast members off/illness creates extra pressure
P42	P42: Started to lose their voices and start to have to have time off.	
P42	P42: In terms of, like, one of the girls was really, really good at, she, she knew her voice really well, so she knew.	
P42	P42: on, like, on a Monday, if her voice... if she stayed to do Tuesday, Wednesday, whether she would have a voice for the next, like, week afterwards. So she was really good at being like, oh, I'm... I'll be able to do Tuesday's show, but I'll need Wednesday, Thursday off if you want me to do... then Friday, Saturday, Sunday. Like.	C68 - Pressure to push through
P42	P42: I know what I need if you want me to stay in the show for longer.	
P42	P42: because otherwise she was like you're gonna she was obviously gonna do she'd push to do more shows which then meant that	
P42	P42: her voice got worse during the shows. Yeah. And then she was out for longer, which meant that we had more cover shows going on. But there was... there was definitely, like, a...	C118 - Repetitive voice use
P42	P42: One of the, one of the incidents that make, that definitely for me is like a, a sort of trickle down thing was that we had	
P42	P42: When the main.	
P42	P42: guy of the show went off, and we had someone... and we had someone step in. Yep.	
P42	P42: Because of how small the cast was, we had... it meant that, sort of, like, every person bumped up into a new role to cover that this new main character was on.	
P42	P42: And then, his... And this is, like, nothing against him, his version of the character was... more	
P42	P42: I guess, like, sort of like... it was a comedy musical, he was more sort of, like, straight acting when he played the main guy, which meant that this kind of bizarre world that we had made	
P42	P42: Almost we didn't.	
P42	P42: fit his world, if that made sense? Yeah. His straight version of the character meant that	
P42	P42: Sometimes when he spoke in scenes and stuff, and this is not the best thing to say about an actor, but it meant that sometimes the energy of the show dipped quite a bit.	
P42	P42: Normal, and it was so crazy that it almost then meant that when it came back to us.	
P42	P42: we had to do a little bit more to justify why we were this crazy, otherwise it just looked like we sort of didn't fit into each other's worlds. So it meant that we had to go further with it all, which meant that...	
P42	P42: He was on for a good couple of days, and by the end of the run when he was	
P42	P42: a lot of the other cast then had to take jobs off, because they were like, oh, my voice is so tired this week, and I don't know why, and da-da-da. I mean, luckily, it was... I...	C67 - Cast members off/illness creates extra pressure
P42	P42: sort of never had to take a show off, because again, it was that thing of, like, oh, I know I'm pushing a little bit harder in this one, or such and such.	
P42	P42: It was very... it... it... after that point, there was a lot more...	
P42	P42: having to drop out because it was like, oh, I can't... I'm not going to be able to do tomorrows	
P42	P42: They dropped out, which then sort of knocked onto... it was like this rolling effect of, because that person had gone out, someone filled in.	C67 - Cast members off/illness creates extra pressure
P42	P42: And then when they came back, they went to their role, but then someone else was like, well, I've been pushing because I've had to cover this	C67 - Cast members off/illness creates extra pressure
P42	P42: That was a big roll down effect. I mean, like, we only...	
P42	P42: Literally, we only did one... our first week...	
P42	P42: Of shows, we had full cast, and then from then on, for 2 months, we never had...	
P42	P42: There was always someone off.	
P42	P42: With something and it was always no one ever got physically injured.	
	Kasia Howley: Yeah.	
P42	P42: So it was always something to do with, oh, that person's starting to lose their voice, so they need to take time off for that, and this person needs to do that, and it was genuinely, like.	
P42	P42: It was always vocal, like no one was physically injured.	
P42	P42: and similarly, actually, sort of joining [P4] and [P41]	
P42	P42: Of being in a different space and then having like haze being affected.	
P42	P42: The play that we have just...	
P42	P42: When we started, when we moved over to do the play in the theater, The main character.	
P42	P42: obviously every time he appears, it's, like, nothing but haze and lights and all of this stuff. Yeah. And when we started tech.	
P42	P42: Because we had to repeat so many things, he basically was just always covered in, like, fog, like, every time you spoke to him.	
P42	P42: blur of fog, and he completely lost his voice during a week of tech, and he was the main...	C178 - Environmental conditions contributing to vocal fatigue
P42	P42: And there's only 5 of us, so we didn't have anyone to cover for him if he went off. So he, for the whole of tech.	
P42	P42: didn't speak because he just had no voice and he because we were all constantly like are you okay what's going on and he was just like I actually feel so healthy and so fine but he genuinely was just like I there is nothing like him saying that was literally just air	
	Kasia Howley: That's interesting	
P42	P42: Yeah, yeah.	
P41	P41: Can I just add something? I'm so sorry. Just off the back of moving from rehearsals into theatre, what I always find really interesting is you often think that you're battling the show and working out your stamina with the music and the relationship with the MD. But for me, the trickiest relationship when it comes to vocal fatigue is with sound designers and sound engineers.	C302 - Relationships between performers and sound department
P41	P41: Because you're... you can do all of the work yourself, you can have all of these discussions with the MD, but ultimately, at the end of the day, once that sound design is created on stage, you're then pushing and pulling based on what they're giving you, or more often than not, not giving you. And...	

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P41	P41: It's a constant battle because so often sound engineers are, I kind of like, I would describe them as like the surgeons in hospitals, like a brain and a heart surgeon have no people skills because they only know how to do the thing that they do. And it's the same with sound engineers. They have no people skills when it comes to people that use the voice because they only understand the technicalities of what goes where and what plugs into what piece of.	C302 - Relationships between performers and sound department
P41	P41: And so when you have conversations about the voice and what you need.	
	Kasia Howley: Yeah.	
P41	P41: You're often met with a lot of hostility because they feel like you're criticizing their work when actually what you're trying to do is advocate for your instrument.	C302 - Relationships between performers and sound department
P41	P41: And I'm gonna name the show, because [west end show] deserves to be named. You know, I've got at least four friends that have walked away from that show with severe vocal injuries, that have now taken them out for really long periods of time, because the sound design on that show is so...	
P41	P41: abysmal, and the sound engineers are not listening, and the...	
P41	P41: I mean, the new company have just been given in-ears, which throws up a whole different load of problems for actors who use the voice but have never worked with in-ears before. And it's just too loud, and the voices aren't being leveled out with the band, so people end up pushing over the music, they get more vocally fatigued, they're...	C302 - Relationships between performers and sound department C180 - Insufficient training on in ear monitor use
P41	P41: pushing to hear themselves, and there's just, it's a forever ongoing battle. And I think there's lots of, like, investigations and stuff going on with that particular production at the moment. But it is definitely an across-the-board problem.	C179 - Use of in ears within musical theatre C181 - Effect of poor in ear monitor balance on performance
P41	P41: problem. And also, you know, like, I mean, I've worked, like.	
P41	P41: as a singer out of musicals and in musicals, and I think what's really tricky is that when you're working as an individual, you know, you're on stage and you're always getting that sound balance based on what is required for your ears, whereas in a company of 25, you're never ever going to get something that...	
P41	P41: Works ideally for you, but I think this blanket rule of like what you get is what you get and	
P41	P41: You know, I did 2 shows last year where in the foldback on stage they refused to put the ensemble in the foldback and so every ensemble member is on stage not being able to hear a single ensemble line and the leads that we're	C11 - "shouting over louder music"
P41	P41: Feeding off of what the ensemble are doing but we can't hear them so we're pushing and they're pushing so we can hear them and it's just	
P41	P41: Shit, which you probably can't put in your, thesis, but that's the way I would describe it.	
	Kasia Howley: How comfortable would you feel,	
	Kasia Howley: [P4], moving into the industry. [P28], thinking about your 3rd year. [P41 & P42], this is about the position you're in right now. How comfortable do you feel going to speak to an MD about	
	Kasia Howley: being vocally fatigued, and either needing to take time off? or maybe for advice?	
P41	P41: Now, at the point I'm in my career now, extremely confident, and extremely confident to advocate for other people in the company as well. But I absolutely did not start there. I mean, I've always definitely been vocal about vocal fatigue, but I...	C64 -Generational differences / Impact of age
P41	P41: yeah, now I would feel very comfortable going to have that conversation, but that's only because I feel like I have enough behind me that they will respect what I'm saying, and I don't think you should have to have that behind you for them to respect that you know your own voice, but unfortunately, I feel like that is something.	C64 -Generational differences / Impact of age
	Kasia Howley: Yep.	
P41	P41: Is it a privilege now? I don't know. It's taken 15 years, but yeah.	
	Kasia Howley: Yep.	
P4	P4: Yeah, I think, for me, leaving drama school now, I got to a point where, in the, like, space at drama school, I could have gone up to any external MDM with, like...	C64 -Generational differences / Impact of age
P4	P4: I'm experiencing this, like, this is what I need to do for me, and I...	
P4	P4: but I think it then comes with just experience of being in this, because if I was to go into a professional job now.	
P4	P4: I feel a bit like, oh, I can't just go making...	
P4	P4: like, a big fuss, because I'm the new guy, like, I'm new, so... Yeah. Yeah. So I think, yeah, I just think it's all experience, like, maybe a few years of doing it, and it'll be a different situation.	C165 - The need for validation and wanting to impress
P28	P28: I think.	
P28	P28: Going into 3rd year with shows and stuff.	
P28	P28: I think I'd be already a little bit stressed about if what I was producing a good sound and like doing a good job, so I think if it was at the start of the process and I was feeling vocally tired, I would feel quite worried about saying something just because.	C165 - The need for validation and wanting to impress
P28	P28: I've not formed that relationship yet.	
P28	P28: I don't know, I would just feel a bit worried, I wouldn't want	
P28	P28: Be like causing a problem or, affecting the show or the rehearsal process.	C288 - Fear of being viewed as difficult
	Kasia Howley: Yes.	
P28	P28: But I think with time it will get easier, but right now the thought of it is a little bit daunting, yeah.	
P42	P42: I think I'm in, like, a sort of, like, weird mid-space between those, like, both of those sort of opinions, where... Yeah. Because I've mainly worked with the same...	
P42	P42: MD.	
P42	P42: we're sort of friends, so I know I could go up to him and just be like, this is today, and I wouldn't have felt that nervous about it, but I think...	C199 - Communication influenced by relationship in the workplace
P42	P42: I think I would be tentative with somebody new, but then I weirdly... because I've...	
P42	P42: because I've worked with an MD that then has been like, okay, yeah, we'll look at that and do that, that I kind of would also be like, I would rather just go and tell them, look, this is a bit of a thing today.	C199 - Communication influenced by relationship in the workplace
	Kasia Howley: I think good experience is, is a really important thing, isn't it?	
P42	P42: Yeah, I don't, like, I think I would, I... if it was somebody, like, brand new that, like, I'd never met before, never worked with, I would definitely have that fear of, like, oh god, I really don't want to be the first person to kind of go over and be like, oh, this is a bit of a struggle today, and, like, and feel like you're, like, whinging about the fact that it's like, oh my god, I'm vocally fatigued today	
P42	P42: I still... I think that... It's still that kind of like.	
P42	P42: I've definitely reached that point where I'm like, I would rather just tell them and deal with if they are	
P42	P42: If they are someone that...	
P42	P42: It's more that, kind of, if they take that as, like, a, ugh, then I know, okay, that's what they're like as a person. Whereas if I say that to them and I go, oh, this is a bit tight today, and they go, oh, okay, well, do you want to have a look at this, or da-da-da?	C199 - Communication influenced by relationship in the workplace
P42	P42: then I know that it's like, okay, they understand, and they're a bit more... wanting to help, and they have a bit more knowledge, and I just think...	
P42	P42: It's that awkward, like, you'd have to cross that line to see which version of a...	
P42	P42: person they might be like, ugh, that's so inconvenient to your face, but then not really be that bothered when they're playing, because if you're like, if you're deep in the ensemble of, like, 30-odd people, then they might kind of be like, well, you know, you're one of 30, so, like, it's fine, don't worry. Whereas some might be like, oh, that's really going to affect harmonies	C199 - Communication influenced by relationship in the workplace
P42	P42: But I think it is that kind of, like, you have to sort of jump across that line and	
P42	P42: see what they're going to be like and then from then on you then know it's okay that's what I'm going to get with this.	

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	Kasia Howley: No, that makes sense.	
	Kasia Howley: Final question before we move into the next section. Do you think, in the industry, prevention is prioritised, or symptom relief is? So if someone's experiencing vocal fatigue.	
	Kasia Howley: Do they respond to it when it happens or are they continuously trying to prevent it?	
P28	P28: sorry, I had something to say on the last thing, again. I think another thing that's tricky is, if there are loads of other people who you can see, do you like, in a morning, in a rehearsal, for example, you can see that lots of people are feeling tired, then that would also make me more hesitant to be somebody...	
	Kasia Howley: Yeah, so you bounce off those around you.	
P28	P28: Yeah, and as well, I think sometimes the pressure of	
P28	P28: I mean, it's a bit different for me.	
P28	P28: we've got like a six week rehearsal process and then a tech week and then a show week.	
P28	P28: It's not like a rehearsal process and then a year-long show, but with, like, things like agents are coming to watch and, like, friends and family are coming to watch.	C25 - Feeling obligated to perform
P28	P28: it's... you kind of feel bad sometimes, like, if I was to have to say to an MD, oh, I'm feeling tired and I can't quite do this bit today, or, you know, I'd feel a little bit stressed about that, I think, because I wouldn't want to not only be affecting them, but also.	C130 - Pressure of maintaining consistent vocal standards
	Kasia Howley: Yeah, for sure.	
P28	P28: affect my reputation with the people who are watching me.	
	Kasia Howley: No, that's, that's, yeah, that totally makes sense. It is, it's that added pressure into a third year.	
P28	P28: Yes.	
	Kasia Howley: So back to that last question, do people prioritise prevention or do they respond to the symptoms when appear?	
P41	P41: I feel like it's a combination. Like, I would say that I am somebody that looks at prevention all the time. My speaking-to-vocal-rest ratio is quite strong.	
P41	P41: Yep.	
	Kasia Howley: Does that affect your lifestyle?	
P41	P41: 100%. Like, I... the things I sacrifice to be on vocal rest are kind of crazy. And you know, it's frustrating to people around me, it's frustrating to my partner, like, it's annoying that, like, when I'm in a show that's very vocally demanding.	C275 - Lifestyle changes to manage theatre demand and vocal fatigue
P41	P41: My entire life becomes that show,	
P41	P41: But if I want to sustain the show, I have to prevent. And in all honesty, even with prevention measures, with the way that most of the scores are written now, the vocal fatigue is ultimately going to happen. So I know it's coming, so I need to prevent it as much as possible so that it doesn't take me out for as long as it's going to take me out for.	C141 - Anticipation prevention prior to upcoming engagements C223 - Industries make vocal fatigue almost inevitable
P41	P41: But I think as an industry standard.	
P41	P41: it's definitely about treating the symptoms once they occur. Like, there is nothing in place to... in terms of... in terms of preventing, no. And I mean, like, I've got friends that are working on,	C60 - Reactive management of vocal fatigue over prevention
P41	P41: [west end musical] at the minute and, like, that character, like, the actual [lead] character, what's expected of them vocally and the voice and the this and the that, and I guess they've worked on prevention in terms of, like.	
P41	P41: there's two of them kind of splitting the track. One of them does five shows, the other one does three. But...	
P41	P41: again, like, I, I don't know if	
P41	P41: I don't know really what that's ultimately preventing, because they're going to get vocal fatigue, so what other things are you putting in place to support that?	C223 - Industries make vocal fatigue almost inevitable
P41	P41: But yeah, I think...	
P41	P41: A lot of, you know, creatives and producers are more interested in asking for forgiveness for what they've asked you to do, as opposed to asking for permission if you're comfortable with it, because you're, you're just sent your schedule, you have no say in your schedule, you have no say in a tech schedule, what press events you're doing around a show, you're just told this is what you're doing and in the equity, in the equity contract, if you do more hours than this, we'll just pay you overtime.	C223 - Industries make vocal fatigue almost inevitable
P41	P41: And there's not this concept of understanding that we don't need overtime, we don't need you to deal with it afterwards, I actually need to only sing for this amount of hours each week. If you're asking me to belt	
P41	P41: F, Gs and A's 8 times a week for 2.5 hours each night, sometimes twice a day. Putting in West End Live before a matinee is not helpful.	
P41	P41: Yeah, and also, they expect you to deal with the symptoms, they don't expect it to have to affect them. And I think because of that, a lot of performers	C223 - Industries make vocal fatigue almost inevitable
P41	P41: digest that work ethic as well, where they'll just, like, keep going and going and going, where they don't feel like there's a problem, until one day they can't... they've got limited range, and they go and they've hemorrhaged. Like, do you know what I mean? So it's... I think it's an industry issue, and it stems from your last question, which is.	
P41	P41: feeling nervous about talking about it in the first place? Because if people actually felt comfortable to go and have the conversation when they were feeling something at, like, a 5%,	C234 - Importance of early identification
P41	P41: then we're not going to get to the 80-90% of vocal injury when people haven't spoken about it in its initial stages. I don't know if that quite answered your question, but that's fine.	
P41	P41: That's my thoughts.	
	Kasia Howley: Yep. That's great.	
P4	P4: Yeah, I think from my experience in third year, prevention was everything for like nearly everyone, especially for the first two sets of shows. No one drank alcohol, no one was going out and the show, similar to what [P41] said, the show became everyone's lives and no one...	C275 - Lifestyle changes to manage theatre demand and vocal fatigue C23 - Guilt around non-work activities
P4	P4: Like, you didn't see anyone out of rehearsals and stuff, and...	
P4	P4: Everyone was so paranoid.	C275 - Lifestyle changes to manage theatre demand and vocal fatigue
	Kasia Howley: And do you think it needs to be that? Or does actually there need to be a change in...	
P4	P4: Yeah, I think...	
P4	P4: Yeah, because it's got, there's got to come to a balance because.	
P4	P4: Obviously, you have to... With anything, you have to work hard and not be silly outside of.	
	Kasia Howley: Yep.	
P4	P4: the working hours, but then it can't also be your whole 24 hours every single day, and you're paranoid to even drink a coffee. Yeah.	C275 - Lifestyle changes to manage theatre demand and vocal fatigue C220 - Paranoia about getting vocal fatigue
	Kasia Howley: And then that, yeah, and that's, it's almost gone the other way, hasn't it.	
P4	P4: Yeah, where you can't, like.	
P4	P4: Minimizing everything just to prevent something, yeah.	
	Kasia Howley: That's a good point.	
P41	P41: Can I just add something to that? So something you guys said, I actually think like that thing of like it not becoming your life. For me, there should be, there has to be a change in schedule where like we are doing eight shows a week, which is, you know, insane, but doing, having one day of rest in between those eight shows, like really you need like a day of rest and a day off.	C275 - Lifestyle changes to manage theatre demand and vocal fatigue

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P41	P41: Yeah. Does that make sense? Like, you actually need a day to recuperate, and then a day to relax and live your life	C23 - Guilt around non-work activities
P41	P41: do you get what I'm saying, so that you don't feel like you're behold to your job over your life.	
	Kasia Howley: Yeah, of course.	
P42	P42: I think... I think I've seen...	
P42	P42: I think I've weirdly seen both sides of it, where I've... in the contract that I had, it was... in the musical, we did...	
P42	P42: I've definitely seen two sides where...	
P42	P42: I don't know, it could have been an age thing, but the one girl was in her early 20s, and she drinks coffee every single day.	C64 -Generational differences / Impact of age
P42	P42: And she...	
P42	P42: When we had a show the next day, would happily get absolutely blathered the night before, and could do the show as if nothing had happened.	C64 -Generational differences / Impact of age
	Kasia Howley: That's an interesting point.	
P42	P42: but then the opposite would happen where	
P42	P42: the other girl that was in the cast that was maybe like early 30s	
P42	P42: She gave up drinking alcohol the entire contract because she was like no, I cannot drink.	
P42	P42: So it was like, okay, and then she drank, like, no tea, no coffees, like, and she ended up getting tonsillitis.	C275 - Lifestyle changes to manage theatre demand and vocal fatigue
P42	P42: But the other girl who was, like, drinking nothing but coffee drank, like... I don't think she had any water in her body.	
P42	P42: Like, never had a show-off with anything wrong with her throat.	
	Kasia Howley: That's so interesting, isn't it? Because I do think this is a massive part of it, is everybody is so different.	
P42	P42: Yeah. And it was really weird that she, like, the...	
P42	P42: The girl that ended up going off with tonsillitis, she knew it was coming on like a week before and was like, what's going on with my voice, and she was talking to them and was saying.	C289 - Every voice experiences fatigue in a unique way
P42	P42: I'm gonna have to start taking it a bit easier because something's happening, and they were kind of a bit like, ugh, and it was... it did give the vibe that it was inconvenient.	
P42	P42: She was going to have to start taking things back a bit, but then.	C288 -Fear of being viewed as difficult
P42	P42: it then got to the point where she was like, I need to go and get this looked at, and when she went to the doctors, they were like, oh, you have very early onset tonsillitis, we can give you the medication now, but you need to, like, stop. Like, they were like, you can't	
P42	P42: you can't be on the medication, and be singing in the shows, and, like, heal your voice at the same time. And the theatre only then were like.	
P42	P42: Oh yeah, you should definitely take some time off because you have got tonsillitis.	
P42	P42: But before that they were kind of annoyed that she was.	
P42	P42: Suggesting that she was becoming difficult.	C288 -Fear of being viewed as difficult
	Kasia Howley: Are all these things people are doing, relevant? Or are people doing things they think they should do because, oh, I've heard that this is good, I've heard that I should do this, I've heard that maybe this works.	
	Kasia Howley: Is it, is there a lot of generalization in, in voice care?	
P41	P41: I think so. I think people hear, like, myths and then, like, hold on to them.	C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?)
	Kasia Howley: Oh yeah.	
P41	P41: But like for me, it's actually not so much like the thing that I'm having, like whether it's coffee or a drink or whatever, it's the stupid things I do when I've had those things.	
P41	P41: like, for me, I can actually go out and have a drink, but the problem with me going out and having a drink is, like, I'm talking louder, I'm shouting, I'm singing, like, I'm actually fatiguing myself, not necessarily what	
P41	P41: I don't drink coffee, so I can't vouch for coffee, but, I've also got ADHD, so when I'm hyperactive, who knows?	
P41	P41: Yeah, I think there's a lot of myths that make people sort of terrified to do anything, and I actually think sometimes it's the mentality of fearing losing your voice that is worse than actually what you're doing.	C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?) C220 - Paranoia about getting vocal fatigue
P41	P41: and this is absolutely not answering the question you just said, but it's kind of going back to the thing of, like, what you were saying, [P42] about the younger and older person in the cast.	
P41	P41: There was a clear shift for me pre-pandemic and post-pandemic, when I, like, entered the industry as, like, early in my 20s.	C64 -Generational differences / Impact of age
P41	P41: my bounce back was really high, I could do so many things and not get vocal fatigue, I could do all of these crazy schedules and I was okay, and then when that collagen stopped producing after the 25th birthday, and my bounce back wasn't as much, like, I do notice now I have to take better care of, like, me and my body, and...	C64 -Generational differences / Impact of age
P41	P41: I think sometimes that shift for actors, that they're unaware is coming, people then try and live their life the way they've been living it in their early 20s, and you notice the shift after it causes an issue?	
	Kasia Howley: So the last bit, is if I could just bring my guide up. So...	
	Kasia Howley: This is something that I developed in my last master's module. It's all based on research and evidence and factual information that is out there. It's also based on the way that people learn, so, cognitive learning, digesting information.	
	Kasia Howley: including colours, layout, everything like that, but it's absolutely very much still being refined. But I'd just be intrigued for any perspectives you have on it, if there was anything on there that you learnt, anything that solidified something you already know, or any points you wanted to make?	
P4	P4: I really learned about the scientific.	C258 - Appreciation of scientific depth
P4	P4: bits behind it. Like, to be honest, I actually... yeah, I never knew about...	
P4	P4: the different, like, bits, like the... obviously, I... the vocal fold, and then the neuro...	
P4	P4: Yeah, like, they never used to in singing tech during my time at drama school. They'd never, they just, like, bracket is just vocal fatigue, and it's just everything. Yeah, so it'd be cool to see if you could find...	C215 - Vocal fatigue multifaceted condition
P4	P4: Different because could do you think you could ever like pinpoint as to when you're feeling it like could you ever be like, it's this part?	
	Kasia Howley: Yeah, that's the goal, is that... are there more ways that people can actually think about isolating their fatigue and thinking about vocal fatigue, rather than just, oh, I feel tired and a non-targeted strategy.	
P28	P28: I'm also really similar. A lot of the things about stopping vocal fatigue from happening, I have heard before. But I definitely think it's really interesting to look at the different	
P28	P28: Scientific elements and strategies because I know that some people have these like massage things and it's like for like the back of their neck.	C258 - Appreciation of scientific depth
P28	P28: And like one of my friends had them and I borrowed it once and I was like, oh, this doesn't really do anything for me personally. But some people feel the benefit of that.	C147 - Influence of peers on vocal care strategies (trends)
	Kasia Howley: Yeah	
P41	P41: I was just gonna say, I think what's really helpful in your guide, like the guys were saying about the scientific breakdown of the different causes of different types of fatigue, and something that I find interesting, that I don't know what your thoughts are on it, or whether, like, it's something that's often discussed, but, like.	
P41	P41: Vocal fatigue is like a general thing.	
P41	P41: everyone's starting from a different place. Like, some people naturally will get fatigued quicker than others, and I think often it's attached to, like.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P41	P41: in the industry to like technique or not having you have to work on your technique and you won't get as vocally tired but actually for some people that's just their yeah anatomy and there's not much education on on that or yeah.	
P41	P41: It's like always given this like doom and gloom, massive negative thing. And actually, I think a large portion of fatigue would be taken away if the anxiety was taken away from it as well.	C28 - Feeling of constant anxiety due to fatigue
	Kasia Howley: And Liam?	
P42	P42: It's sort of the same as the others, I was really surprised at seeing the...	
P42	P42: like reading the breakdown scientifically of like how many different types there are because it's a lot of.	C258 - Appreciation of scientific depth
P42	P42: A lot of the time people just go like "oh my voice is so tired" and that's just as far as they register that their voice is tired.	
P42	P42: But then I was quite, like, because I feel like...	
P42	P42: I always hear that the relief is always just kind of hydrate or don't say anything. Like it's always just one or the other.	C258 - Appreciation of scientific depth
P42	P42: In time. And I was quite...	
P42	P42: Like, ironically, I was, like, quite happy to see that you, that it had exercises on it, because	
P42	P42: for me, I think mainly because I know that mine is quite, like, a muscle...	
	Kasia Howley: Yep.	
P42	P42: Tiredness or muscle tension, the Obviously, all music, basically all musicals are tenors	
P42	P42: It's like, for me, not being a tenor, like, that uses so much energy, but sometimes it's like...	
P42	P42: When, like, one thing that I noticed when we did vocal warm-ups for the musical was that.	
	Kasia Howley: Yes.	
P42	P42: he always... the MD always did stuff building all the way up, and, like, staying up there for a bit, but then he built it all the way back down again. And a lot of the lads that sang higher were like, I just don't get why we would do a warm-up, and then... and then do loads of lower...	C3 - Company led warm up
	Kasia Howley: Yes.	
P42	P42: That's when our voice needs to be placed higher, whereas for me.	
P42	P42: I was like well actually I find it easier to get higher when I	
P42	P42: Really roll out everything in my lower and I make that feel really relaxed because then it stops.	
P42	P42: my muscles from, like, tensing and staying really tight for when I get higher, because I'm...	
P42	P42: Because I sit and I massage everything when it's all relaxed, but then I can go, okay, and then can I move up to here? Oh, I can sit here now because I've, like, smoothed all that out	C3 - Company led warm up
	Kasia Howley: Yep.	
P42	P42: I was kind of... I was quite surprised to... when they said it to me, I was quite surprised that I was like, oh, so you don't.	
P42	P42: You don't feel any difference when you massage, like, your lower range?	
	Kasia Howley: Do you think this guide could be beneficial in the world, like, in the professional voice world, in theatre, or elsewhere?	
P41	P41: Yes, I do. And I think it's useful for voice users, I think it's useful for creatives to understand what it is that voice users are coming to them with. I think that, like.	C240 - Relevance of guide for those working with singers
P41	P41: Education and it delivered to you in a succinct, direct, informative way, where people don't feel like they have to go and do.	
P41	P41: whatever course they're being sold online to understand the voice, like, if this information was, like, readily available to them, in a way that, like, in a... articulated in a way that they could understand, I think that's important, and I think you do that brilliantly.	C72 - Clear and accessible design
	Kasia Howley: Thank you.	
P28	P28: I think that it's amazing	
P28	P28: and I think, like you say, there is a lot of taboo about vocal health and vocal fatigue, like	
P28	P28: You know, not having dairy or not drinking or not having coffee or whatever it is, it's really nice to have a clear, succinct guide that's like, like you say, it's like a 5 minute read and it really specifically outlines everything that you need to know. And I think we've all found things on there that we didn't know about.	C72 - Clear and accessible design C109 - Guide provides immediate clarification
P28	P28: And especially for like [P42 and P41] who've been working professionally and they've not, they might not have known some of those things before. Everybody would probably benefit and learn from it too.	C304 - Relieves negativity surrounding the condition
	Kasia Howley: Do you think it could be useful in training?	
P4	P4: Yeah, massively. Like, it's such a... it's a very easy... it's really easy visually to, like, pinpoint, like...	
P4	P4: And it's just like even like I go back to the scientific bits, it's just people like to know that way earlier, I think that just	
P4	P4: Stops the idea of it just being about vocal health and I'm tired.	
	Kasia Howley: Yes.	
P4	P4: And, like, to have things to do already that... Yeah. Like, if you had this at the start of drama school as, like, your singing pack, like, you'd have been sorted.	C116 - Suggestion that guide would be useful at the start of training to develop prevention
	Kasia Howley: thank you.	
P28	P28: Sorry, I agree as well. We've done vocal stuff, but we kind of do it at the start of the year and then we get given it out. But maybe, I mean, you can't change the curriculum, but I feel like it should be something that's more consistently checked in with like, oh, like.	
P28	P28: Yeah, like this week, everybody needs to try SOVT, and that would be really good, because I feel like...	
P28	P28: able to assist everybody on their own journey to understanding what they need.	C303 - More regular check in's surrounding vocal fatigue in training
	Kasia Howley: Is there anything anyone would change about it? That could be visually, it could be structurally, content, anything!	
P42	P42: I did want to say it's not anything to change.	
P42	P42: that for me this gets rid of the idea of	
P42	P42: The doom and gloom of fatigue.	
	Kasia Howley: I love that!	
P42	P42: Because it, it doesn't, I like, and I feel like we spoke at this very, very start of the call.	
P42	P42: like that it can feel very like oh that's the worst thing that could happen to you is this thing	
P42	P42: Yeah. And that's the end of it. Whereas like reading this made it just go like, hey, so this thing happens sometimes and it's going to happen in so many different ways. Oh, great. It's going to be this extreme or it's going to be this minimal, but then this is how you can just deal with that and how it can sort you out. Amazing. It didn't feel like it was pushing anything on me. It genuinely just felt like it was like, oh, this is this thing that happens.	C304 - Relieves negativity surrounding the condition
	Kasia Howley: That's great!	
	Kasia Howley: Any other thoughts to share before I stop recording?	
P41	P41: No, I was gonna say one thing that came off the back of something that [P42] said, which was about vocal warmups, and I don't know how much of this, like, you're including or talking about, but I think there's a lot to be discussed in the format of	
P41	P41: at drama school and working professionally about how we warm up, and, like, the concept of, like, a group warm-up. I'm, like, very anti-group warm-up. And I think it's become, like, a structured thing in the industry that you must turn up to warm-up, and you must join in with	C3 - Company led warm up
P41	P41: that's, for some reason, considered being professional, when actually, to me, it's much more professional to take myself off and do the vocal warm-up that I need to do for what my voice is doing in that show. And I think that's, like... and it happens at drama school as well, you know? We used to have to do...	C2 - Importance of a self developed warm up
P41	P41: These group vocal warm-ups in ensemble and whatever, and most of the time the exercises you're given by these.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P41	P41: people are vocally fatiguing, because they're not warm-ups, they're just, how many harmonies can we add in a room to Bella Signora, and who's going to sing the loudest so that they get a high mark in their ensemble class? Like, do you know what I mean? So, and it translates into the industry, where it's like, if you stand at the front and sing loud.	
	Kasia Howley: Yeah no that's helpful, thank you.	
P28	P28: I would actually really agree with [P41]. I find that, for me personally, when I'm warming up, I love to do things that I've focused on personally.	C2 - Importance of a self developed warm up
P28	P28: Things that I've been working on in my singing recently,	
P28	P28: But what I was going to say as well is I really like the guide because it uses like	
P28	P28: this sounds really silly, but I like how it's got, like, different pictures, and it breaks it up really nicely. It's not just like, here's a guide, it's like a big Word document. I think that it's nice how it is broken up into sections, and it sort of outlines what it's going to discuss, and it's got, like, little pictures. I know that's a bit silly.	C72 - Clear and accessible design C186 - Cognitive overload has been reduced through the design
	Kasia Howley: It's not silly, because everyone has different experiences, and like, neurologically, everyone is different!	
P28	P28: Yeah, but I think it's clear with like the pictures and I think it's broken up really well.	
	Kasia Howley: Thank you	
P28	P28: I think, as well.	
P28	P28: I feel like a lot of people in this industry are always super busy and it's not like daunting to look at. It's very like inviting. Yeah.	
	Kasia Howley: Well, I'll stop the record now if everyone's happy!	

Dyad - Musicians

(P12-M, P46-M)

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
DYAD P12 - Musician P46 - Musician	Kasia Howley: So to start, could you individually just share how you use your voice, within your professional career, in what capacity?	
P46	P46: Okay, so I work predominantly as a singer. Weddings, pubs, clubs, whatever pays the bills to be honest. And I also teach a couple of days a week at a dance school.	C9 - Multiple Professional Roles
P12	P12: I predominantly work as a singer as well. I used to do loads of pubs and weddings, do a lot of... so I'd be doing, like.	
P12	P12: 4 or 5 a week gigs sometimes, doing more... doing less gigs now, a lot of weddings and a lot of recording in the studio as well, so I'm not doing as much work vocally at the moment.	C1 - Demanding schedule
	Kasia Howley: Perfect. And for both of you, if someone said the term vocal fatigue to you, what would it mean to you?	
P46	P46: For me, it's when things start to get a little bit, like, they don't feel right, and I was reading through your... the guide that you turned through, and I was like, yeah, as soon as you start to see a couple of these things happen, like.	
P46	P46: Oh, you're, like, singing and suddenly there's no power, or you just generally feel a bit... Run down?	C290 - Lack of vocal power
	Kasia Howley: Yep.	
P46	P46: Like for me anyway, like I'm like, oh, am I getting ill? And no, I'm not getting ill. Nine times out of.	
P46	P46: ten, no I can just feel it.	
P12	P12: Yeah, same for me really. And also like if I've got like a run of quite a lot of gigs, like back to back, I've almost before like got this anxiety of, oh, this is gonna be hard on the voice and feel like the tiredness and almost like the limited kind of range, like as I'm getting through that kind of run of gigs as well.	C28 - Feeling of anxiety due to fatigue
P46	P46: Yes.	
	Kasia Howley: Do you feel a change physically?	
P12	P12: Yeah, okay.	
P46	P46: Yeah, yeah, I think it's all kind of wrapped up with when you do have a big long run of gigs, you know, like, we're into wedding season now, the anxiety is, like, sky high, because you're like, oh gosh, I can't let XYZ down for the next couple of weeks.	C6 - Seasonal Demands
P46	P46: I think you're kind of fueled by adrenaline and then if you have a break like today but I'm trying to I'm trying to strategically put them in knowing now that.	
	Kasia Howley: Yep.	
P46	P46: There will be that day where you just go [sinking gesture]	
	Kasia Howley: Yep.	
	Kasia Howley: And do you feel like there's a shared understanding of the term within the field of musicians? Do you feel like it's spoken about?	
P12	P12: I don't know, really, I think so, but... I don't know.	
P46	P46: Working with other people, like, when I was on theatre shows, producers, etc.	
P46	P46: We're the worst, like, I, I don't, I don't think there's much.	
P46	P46: Sympathy if you are.	C299 - Lack of understanding from authoritative figures
P46	P46: Yeah, if you're tired, and it's just kind of a case of keep calm, carry on, even though you kind of know as yourself as a performer sometimes that I shouldn't have done that, or...	C68 - Pressure to push through
P46	P46: That was kind of, like, a bit of a stretch, like, so I think.	
	Kasia Howley: Yeah, actually.	
P46	P46: There's a long way to go, yeah.	
	Kasia Howley: Do you work with booking agents?	
P12	P12: I don't	
P46	P46: Yes, yeah.	
	Kasia Howley: I guess like in terms of who has booked you for a wedding or venue, do you feel a level of pressure if you do go to one of those gigs vocally fatigued? Would you share it with them?	
P46	P46: Yeah, my agent's quite... he's quite understanding, like, I've never been shouted at, and it's... it's kind of, like, giving them enough notice, I think, and, like, being physically aware of where you are at, limit-wise, and...	C311 - Supportive booking agency
P46	P46: You know, I'll tend to tell them, if it's... if you feel it coming on, your voice is going, etc, I'm like, well, I can make the call now.	
	Kasia Howley: Yes.	
P46	P46: Right, yeah, a couple of days before. Yeah. Never had an argument on my hands in that.	
	Kasia Howley: Oh, that's good	
	Kasia Howley: And do you feel like, in terms of, like, other musicians that you, like, chat to, do you feel like vocal fatigue	
	Kasia Howley: is discussed in that capacity?	
	Kasia Howley: Because you're all in quite similar positions, I suppose, quite heavy workload.	
P46	P46: Yeah, I have a couple of friends who, I mean, well, mostly bad experiences, isn't it? I think people don't talk about it once they've had something happen.	
P46	P46: happen to kind of trigger that kind of like, oh, you need, you know, you need to be taking care of yourself. And, you know, I've got friends that go to regular, now physiotherapy and manual therapy and, and, you know, speech therapy because of stuff that's happened years ago.	C183 - Prevention prioritised after a problem has occurred
	Kasia Howley: Yeah. Okay.	
	Kasia Howley: Do [P12] speak to any fellow musicians who experience fatigue?	
P12	P12: Yeah, I feel like sometimes it's discussed, but it's also just sometimes one of those, like, he'll be alright, kind of thing, you know?	C285 - Simplified perceptions of vocal fatigue
	Kasia Howley: Yeah,	
P12	P12: Yeah, just kind of dealt with. I know for me, because I book, like, most of my own stuff.	
P12	P12: Like, if I do have a busy road, I'll try and be a bit lighter for, like, a week or two after, and.	
P12	P12: work that way.	
	Kasia Howley: Schedule yourself.	
P12	P12: Yeah, because it's even like me, like I know if I'm getting tired, I know I'll be able to get through it.	
	Kasia Howley: Yeah. Okay.	
P12	P12: There is that kind of anxiety there that you're like, I'm not, it's not going to be my best kind of performance.	C130 - Pressure of maintaining consistent vocal standards
	Kasia Howley: An interesting thing that has come up about musicians that I'd be grateful for your opinion on is	
	Kasia Howley: The financial element of it.	
	Kasia Howley: As a musician you get paid for what you do, and if you don't do it	
	Kasia Howley: You probably won't get paid. I don't think there's any capacity for musicians where you might get paid if you don't turn up, is there?	
P12	P12: Well, this is why I'm trying to do all this Patreon stuff now.	
	Kasia Howley: Yep.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P12	P12: over the artist stuff, so I don't have to, like, actually gig as much.	
	Kasia Howley: Yes.	
P12	P12: But yeah, that's been huge for me in the past, where it's like.	C192 - Financial consequences and pressures of vocal fatigue for musicians
P12	P12: Well, unfortunately, even if I'm tired, I still have to go and do the gig to get paid.	
	Kasia Howley: And do you feel the same with recording sessions, I suppose, if you've booked a session in?	
P12	P12: I'll always try and make sure that the diary is clear around it, and I'm not, like, gigging the day before or anything, and my voice is fresh. Because I sometimes found out, weirdly, I don't know if it's because I'm, like, pushing harder in the studio.	
	Kasia Howley: Yes.	
P12	P12: Sometimes I can be more tired after a studio session than a gig sometimes, which is weird.	
P46	P46: Yeah, I think because generally studio sessions are a little bit longer, a little bit more.	C118 - Repetitive voice use
P46	P46: I mean, the last couple I did, it was, it was more heavy rock, so to get that sound out.	
P46	P46: in a small studio, it was really heavy going. And, you know, you couldn't mask it by doing, like, a nice thin fold sound, it would just sound like G. Tinney, so it had to be proper rock, belt, and full, and, you know, doing that take, God knows how many times. And it's your choice, if it's original music, I get that, but...	C118 - Repetitive voice use C39 - Stylistic vocal demands
	Kasia Howley: Yeah. Actually, the difference between, studio sessions and live performance, do you feel like it is more manageable between one or the other?	
P46	P46: Oh, I don't know. I mean, it's been a while since I've been in the studio	
P12	P12: Well, I think for me, it's like with the weddings, I get very comfortable doing the same set and singing the songs in the same style, so it's almost like I can work around it a bit more.	
P12	P12: I'm in the studio, it's obviously, like, pushing hard.	C32 - Too much vocal effort C39 - Stylistic vocal demands
	Kasia Howley: Mmm.	
P12	P12: Trying different stuff.	
P12	P12: Yeah, I guess	
P46	P46: I feel more exposed in studio than...	
	Kasia Howley: That's a good point And obviously, I imagine both of you work with a producer in the studio.	
P12	P12: Yes.	
	Kasia Howley: And what's that sort of relationship like?	
P12	P12: Yeah, good, to be fair with mine, I know when to, you know, like, be smart with it and not be pushing too long, kind of thing.	C199 - Communication influenced by relationship in the workplace
	Kasia Howley: Yes.	
P46	P46: I remember the last time we did it, there was very limited time to play around and get everyone together.	C45 - Pressure of timescales
P46	P46: Yeah, but then at the same time trying to get that sound out and.	
	Kasia Howley: Yep.	
P46	P46: But then, the last time I was doing that, I wasn't really gigging as much, so... But brought the teaching in to kind of...	
P46	P46: buffer, so I could drop a gig a week, etc. But then you find when you're teaching, you're kind of...	C192 - Financial consequences and pressures of vocal fatigue for musicians
	Kasia Howley: I suppose when you pick a producer for your own music, you've chosen that producer?	
P12	P12: Mhm.	
	Kasia Howley: So it's not like in the same situation as if you are getting booked for a sync gig.	
P12	P12: Yes.	
	Kasia Howley: where you're going to them because they've asked you to come in.	
	Kasia Howley: Same with a musical director, they're the musical director. Whereas I guess, I suppose that's quite a nice thing, doing your own music picking who you like to work with in the relationship that's created in the room.	
P12	P12: Yeah, and also the way you work as well, because.	
P12	P12: Mine, it's very, like, informal, we're only really working with each other, so it's.	C199 - Communication influenced by relationship in the workplace
P12	P12: if I need to go in to do vocals on another day, I can just, like, nip down.	
	Kasia Howley: Yeah, which I guess is a way of managing fatigue actually.	
P12	P12: yeah true	
	Kasia Howley: So, what signs specifically do you feel, that could be physically, behaviour, emotional, when you are starting to get vocally fatigued?	
P46	P46: Oh.	
P46	P46: It's hard to describe. I can feel it.	
P46	P46: On my larynx, like it's, it's, it feels.	C89 - Sensation of tightness/aching around tongue and laryngeal region
P46	P46: tighter than it should do, you know, and you kind of, like, I had three last Saturday, two of which were outside in the sun, and then the evening one was a great big football kind of thing, so... but...	C89 - Sensation of tightness/aching around tongue and laryngeal region
P46	P46: I knew... I knew that that was... I was dehydrated, even though I'd had a massive vat of water next to me.	C88 - Vocal fatigue presenting as dehydration
P46	P46: Yeah, it's just tight, and then you just start... I just What's that word? Tired.	C13 - Feeling tired
	Kasia Howley: Yeah.	
P12	P12: Yeah, same, really, and also, like, my face gets really tight, like, my jaw as well, and I can just really feel the tension in there. Yeah. And then, almost like...	C89 - Sensation of tightness/aching around tongue and laryngeal region
P12	P12: I don't know, just your voice, just feeling a bit deeper, a bit flatter.	C17 - Reduced vocal clarity
	Kasia Howley: Yeah, yeah.	
P12	P12: It's not as kind of... quite right.	
P12	P12: Another thing is as well, it depends when I play with the band as well.	
	Kasia Howley: Very good point.	
P12	P12: So I'll be pushing harder and if it's like an energy thing and it's.	C32 - Too much vocal effort
	Kasia Howley: yeah, interesting, so do you feel like actually you get more fatigued with the band?	
P12	P12: Yeah, I do, but I don't play with the band that much, so it's like, when I do, it's more like, you know...	
P12	P12: I'm the only vocal, and also 9 times out of 10, it's like when I've been performing at a wedding all day, and then the band will join me at the evening	
P12	P12: And it's almost like, I don't, like I say, I don't really do many of them, or we're at a pub gig or something. I normally try and do it where that'll be like my last gig in like a month, so I can kind of just you know	C312 - Excitement takes over

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P12	P12: Let's say for a pub, like, have a beer or something, let my hair down a bit	C312 - Excitement takes over
P12	P12: but then I really noticed that I am more fatigued.	
	Kasia Howley: What about yourself, [P46]? Do you feel difference with a band?	
P46	P46: Well, yeah, I mean, again, it's been years since I've been with one. But the bands I did work with, like the wedding bands, there was always a couple of singers. And then when it was my band.	
	Kasia Howley: Yeah.	
P46	P46: We all had in-ears, and it was just kind of like a... The producer was in my band, so he was...	
P46	P46: It was really good at that, like, kind of like.	
P12	P12: I bet that's a big thing as well, like having good monitoring because we don't really, we might have like a wedge monitor, but.	C313 - Poor monitoring effects vocal performance
	Kasia Howley: Yep.	
P12	P12: we don't really.	
	Kasia Howley: Yes, the next question I was going to go on to is the factors that contribute to vocal fatigue, such as monitoring and in-ears as you mentioned. How often do you work with in ears?	
P12	P12: I don't, no.	
P46	P46: Obviously on shows, it was always in ears, et cetera. I was a terror for just having one ear in and one ear out, though, because I do like the live sound.	
P46	P46: But I have been debating, because I'm getting a new PA anyway, and I was like, I should just put them in ears, because it'll mix down and just...	
P46	P46: You know, if I do a duo gig, with one of the duos I work with, he always has in ears, and it's just a dream, I just don't think about what I'm doing on.	C314 - Benefit of in ears
P12	P12: It's been on my list for ages to start using them, but I've just never got around to it. But like I've actually started, like my hearing, like tinnitus has been really bad recently. So I've been using just like loops. And to be honest, like using those, that makes my voice feel really weird because it almost like plugs your ears.	
	Kasia Howley: It isolates it	
P12	P12: When I'll be singing loud and I've got the loops and it's like, it sounds even louder in my head. Yeah.	
	Kasia Howley: Yeah, and I think there's been interesting conversations about in ears starting to happen.	
P46	P46: Yeah, I hated it when I had both ears in. Like, because you don't know what's going on. I used to really disorientate me on stage.	C181 - Effect of poor in ear monitor balance on performance
	Kasia Howley: Yeah.	
P46	P46: one performance I did, I just had to... God, it was an awful thing, sing never enough on my own, in the middle of the stage, just with a spotlight on me, you couldn't see anything, and like...	C181 - Effect of poor in ear monitor balance on performance
P46	P46: It felt like I was on a ship, because then I could hear the piano, which was a million miles somewhere back on stage, and that was it. And then there was a click track, and I was like, I hate this, I really hate this, because I've got nowhere to ground myself and anything could be going on.	
	Kasia Howley: Yeah.	
P46	P46: Mmhm.	
	Kasia Howley: Yeah and with weddings sometimes you are in really noisy environments, like if it is the drinks reception or the evening?	
P46	P46: Yeah, I feel like at weddings I kind of half sing	
	Kasia Howley: Yes.	
P46	P46: If that makes sense. It's more like a twinkly sound because I've got like more of an Adele voice like weddings are like more of a dolly voice like.	C39 - Stylistic vocal demands
P46	P46: Like, just like playing around with thin folds and just like, yeah, it's really nice and pretty.	C39 - Stylistic vocal demands
	Kasia Howley: Yeah, and different scenarios. Is there anything else you feel like contributes to when you feel vocally fatigued? And that could be, like, personal life, doesn't have to be in singing?	
P12	P12: One big one for me is actually being almost like conditioning almost. Like when I used to do a lot more gigs, I'd feel like my voice had more of the level of resilience, especially when I was having regular sessions and I was doing straw work as well. And I've really noticed because I've not been gigging as much, I'm not doing as much straw work.	C202 - Singing lessons as an aid for vocal maintenance
P12	P12: I'll still get by but I do feel...	
P12	P12: I feel like my voice has become less resilient because I'm using it less, basically.	
	Kasia Howley: Interesting.	
P12	P12: When I was doing bi-weekly sessions, I feel that straw work really, really helped me, to be honest. So doing that less is, you know, just feel a bit fatigued a bit quicker and just have a bit less control as well.	C315 - Taking a break reduces stamina/resilience
	Kasia Howley: Yeah, no, that's good to know.	
P46	P46: I took nearly three years off full-time gigging and teaching.	
P46	P46: You know, in that stage, I was maybe doing 2 gigs a month, if that, like, just to keep my feet in the water, because I still enjoyed it, and I was like, yeah, I'm gonna try this other career. I meant to come back to it full-time, pretty much straight away, in, like, May.	C315 - Taking a break reduces stamina/resilience
	Kasia Howley: Yeah, yeah.	
P46	P46: One side is great because the bookings came in straight away. The other side was, whoa, like trying to like.	
P46	P46: It gets tired quicker.	
P46	P46: You know, and with a vocal coach I've got, and he was like, and then you were, like, finishing this run of gigs, and then you're just going straight into teaching, like, Monday through Wednesday, and I was like, and he was like, when are you resting?	
	Kasia Howley: Yeah, it's a big change!	
	Kasia Howley: And, What sort of approaches do you know about that can help people manage fatigue? And this could be ones that you use, that help you, could be ones you've heard of, and you're not sure about as well.	
P46	P46: I mean, I just get screamed at to steam all the time.	C47 - Vocal steaming
P46	P46: And I do say it to, I say it to students all the time, like just steam and obviously hydrate.	
	Kasia Howley: And do you feel the steaming helps you?	
P46	P46: uhhhh [visibly shrug] I think overall hydration helps me a lot more.	C48 - Uncertainty around vocal steaming
	Kasia Howley: Yep.	
P46	P46: Because, you know, again, this is different to three years ago. Three years ago, I wasn't working out a couple of times a week. Now, I do work out as part.	
	Kasia Howley: Yes.	
P46	P46: like, you know, before a gig, etc. and I'm like, hydration is...key	
P46	P46: Coming in also with hydration tablets, things like that.	
	Kasia Howley: Yep.	
P46	P46: for me and that cool downs.	
P46	P46: Like, obviously you've got your warm-ups and things like cool-downs, just taking that time and...	C218 - Importance of cool downs
P46	P46: Trying to rest it during when I don't need it.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
	Kasia Howley: Back your comment about steaming, do you feel like that is something that is recommended a lot?	
P46	P46: I think with the rise of nebulisers, et cetera, and things like that, I mean, it's great, because obviously before this, like, you'd say stuff to people, and as a vocal coach, you know, they'd probably go away and never do it. And I'm guilty of that myself. Yeah.	
P46	P46: I mean, if I probably religiously did it, I'd probably find the benefits. I've got a new nebulizer arriving today, so I'll let you know.	C316 - Importance of consistent vocal maintenance
	Kasia Howley: And [P12], do you have any preferred strategies?	
P12	P12: I, I feel like Steamings okay, but I do feel like hydration, just making sure he's super hydrated is.	
P12	P12: That's essentially what it's trying to do, the steam, isn't it.	
P12	P12: Get water literally on the vocal folds	
	Kasia Howley: Okay.	
P12	P12: But yeah, hydration, warm-ups, I'm warming up, like, with a straw.	C2 - Importance of a self developed warm up C222 - Straw/SOVT work to manage the voice
	Kasia Howley: Yeah.	
P12	P12: I don't really do cooldowns as much as I should, maybe I should look into that.	
P12	P12: And then just, like, rest, really. I'm, like, not trying. So I've sometimes found, as well, just talking can, like, be so fatiguing.	C104 - Vocal Rest
P12	P12: So, especially, like, if you're talking loudly, like, sometimes if I'm on a break at a wedding or something, and you're, like, chatting to guess, and you're, like, you can feel it	
P12	P12: sometimes more than the actual singing.	
	Kasia Howley: Yep.	
	Kasia Howley: Do you feel like people prioritise prevention of vocal fatigue or management of it when it happens?	
P46	P46: The management, 100%, yeah.	C60 - Reactive management of vocal fatigue over prevention
P46	P46: with professional performers that I know it's only when something's gone wrong that I get a message off a friend or something, be like, oh, do you have any top tips? I'm like, do you have a vocal coach? She's told me this, etc. I'm like, yeah, and then that's...	C183 - Prevention prioritised after a problem has occurred
	Kasia Howley: Yeah. And do you feel like you prioritise prevention or prioritise management?	
P46	P46: Right now, because I know that it's... I've got to strengthen it up.	
	Kasia Howley: Yeah, yeah.	
P46	P46: I suppose manage things, but just be more aware of things.	C210 - Prevention prioritised rather than management
	Kasia Howley: Yeah. What about you, [P12]?	
P12	P12: I think for me, it's very much depends on what kind of like season I'm in almost because at the minute, because I'm trying to do like the recording and try to build the original thing and I'm not gigging as much, not really too bothered about doing that prevention really. I'm just, I know a lot of the gigs.	C6 - Seasonal Demands
P12	P12: Yeah, even though I can tell my voice is weaker, like, I know I can get through it, so I'm not really worrying too much, but, like, when I do the album and stuff and go out on tour, that's when I'll be like.	
P12	P12: get into more of a routine and really it more seriously. So.	
P46	P46: Hmm. I mean, I've, I've found that, you know, with, with some of the apps now.	
	Kasia Howley: Yes.	
P46	P46: stage tracks I use.	
P46	P46: Three years ago I would have had the ego to be like oh I've got to sing that in the original key gotta do this gotta do that yeah I'm like.	
P46	P46: I don't care now. If it sounds good, it sounds good. It's gonna go down a couple of keys. It's fine. No one in this audience apart from	C158 - Older/more experienced performers are better at advocating for themselves
P46	P46: musicians, maybe one or two of them would have a clue. So.	
	Kasia Howley: Back in the day, would you have not wanted to lower the key?	
P46	P46: Yeah, yeah, especially if it was... I mean, not... the theater stuff and the band stuff, it was always kind of the... it was a rehearsal thing of going, well, what's the best key for you? Yeah. And as an alto, that would usually be B-flat or A, to be honest. I was like, just play it in that one, it's fine.	C158 - Older/more experienced performers are better at advocating for themselves
P46	P46: not precious about it. I'm like, if it sounds okay, it sounds okay, and like I said, if you're getting tired	
P46	P46: I have quite a nice, high...	
P46	P46: thin-fold sound that is, you know, I can access that part really well, even if I'm tired.	
P46	P46: similar, like, okay, I've got a low... it's that middle ground, where the passaggio is, that I'm like, right, well, if I'm in that ill stage, either the songs go up or the songs go down, I'm like, there's no... and avoid that Adele bit in the middle.	C38 - Adapting vocally when tired
	Kasia Howley: Yeah, so you adapt the sort of music for when you are feeling vocal fatigued.	
	Kasia Howley: What about you, [P12]? Do you feel like you ever change your vocal approach?	
P12	P12: I just... yeah, I've always just kind of messed around and just done it with whatever fits my voice. If I'm feeling more tired, I'll even normally go a bit lower than I normally would. Yeah. I've not had to do this in a while, but sometimes I'd even... like, I normally tune my guitar down, like, step down anyway.	C38 - Adapting vocally when tired
P12	P12: But sometimes, I used to, back in the day, when I was really busy, just shoot it down, like, a full step into D, just to give me that. Because then I could still go up by using a capo to wherever I needed to, but... Yeah.	
P12	P12: I'd rather do that if I were really tired, and I knew that I had a few gigs. Yeah.	
P12	P12: But yeah, I've always just tried to do it in whatever works best for my voice, really.	
	Kasia Howley: That's really helpful.	
	Kasia Howley: So the next section is, I'm going to bring this guide up that I've developed. So essentially this guide was developed in the last module of my Masters, the penultimate one.	
	Kasia Howley: it's all research-based, evidence-based. Also, it's looking at, cognitive development and how people learn and process information as well. It's being refined still	
	Kasia Howley: So it's essentially just a chance for you to just offer any, any feedback or thoughts, I'd love to hear anything you learned from it, anything that was new.	
	Kasia Howley: So yeah, I've put it up on here if you can see it.	
	Kasia Howley: I'll just turn my camera off for a few minutes, just so you can have another look at it, because I know everyone's got very busy lives! Then I'll turn it back on, and, we can just chat a little bit.	
	Kasia Howley: So I'll flip through it as we go, but any initial thoughts?	
P46	P46: I mean, when I read through it a couple days ago, I was like, yeah, following that one, and then, yes, I'm definitely neuromuscular.	C74 - Relatability of the symptoms
P12	P12: Especially on the first bit, like, kind of acknowledging that it's, like, finding the symptoms	
P12	P12: assess it, really, because I think there's, like, you've been quite realistic that it's not just like, oh, your voice is tired, cancel all your gigs ever	C73 - Logical structure of progression (Guide)
P12	P12: It's like, evaluate the impact of it, consider potential causes.	
P12	P12: Target strategies, yeah.	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
	Kasia Howley: Yeah.	
	Kasia Howley: And those symptoms, do they ring true?	
P12	P12: Yeah, yeah, definitely.	C74 - Relatability of the symptoms
P12	P12: I think the neuromuscular stuff's really interesting,	
P12	P12: It's so interesting knowing, like, the underlying mechanisms, and you're like, oh, yeah, it makes sense.	C237 - Interest around the different underlying mechanisms
P12	P12: Why it's... why it gets fatigued like that.	
	Kasia Howley: Yeah	
P46	P46: Yeah, the, the metabolic one... The... that was... Yeah, okay.	C237 - Interest around the different underlying mechanisms
P46	P46: I had moments like that when I had lost quite a significant amount of weight on maybe that week or whatever I'd just be like oh gosh like it's like it's right effort like but I think just the whole body was generally	C237 - Interest around the different underlying mechanisms
P46	P46: An effort to just do some physical.	
P46	P46: and the heaviness kind of rings... it definitely rings...	
	Kasia Howley: Yeah	
	Kasia Howley: So would it make you consider, I suppose, vocal fatigue in not a different way, but a more in-depth way?	
P46	P46: Yeah, it's... well, it's good to have, just to kind of.	
P46	P46: Yeah, okay, where am I at this week on this, like, scale?	C317 - Using the guide as a check in resource
	Kasia Howley: Yeah.	
P46	P46: Especially, like, during, like, so busy... but we're into busy months now until...	
	Kasia Howley: Yeah.	
P46	P46: Never, and then...	
P46	P46: You can kind of assess if you do need to take a step back and or maybe.	
P46	P46: Go silent for a couple of days.	
	Kasia Howley: On that, do you feel like absolute and relative voice rest is something that is...	
	Kasia Howley: differentiated and the difference is considered?	
P46	P46: I think it's one of those...	
P46	P46: I think people take it more seriously in musical theatre than,	C318 - Difference between musical theatre and musician approaches
P46	P46: That we do, per se, as gigging musicians, but...	
P46	P46: and it's hard for it to, you know, if you said to someone, like, I've said to my other half, like, I'm on voice rest, he'd be like	
P46	P46: You! I can't shut up half the time. Yeah, I think whereas...	
P46	P46: when I was on theatre, et cetera, because you knew you had, like, these stage shows to do, if you suddenly went to people, and this is, you know, going back to the producers, et cetera, on that side of things, they would be like, right, okay, yeah, just leave her alone and...	
	Kasia Howley: Yeah.	
	Kasia Howley: And do you think the guide would be beneficial in the professional field, to musicians, to, anyone?	
P46	P46: I think anyone really because I mean a lot of the people I know that aren't.	
P46	P46: singers are using their voices professionally, per se. It's always people like teachers who have	C282 - Beneficial for anyone working with voices or using their voice
P46	P46: You know, the amount of teachers I know who've got nodules a couple of years into their career, et cetera, and...	
	Kasia Howley: Yep.	
P46	P46: it... there's... there's zero of training of how to use your voice in teaching, as far as I remember, but... or know that it happens. Maybe it does now, but... yeah. It's just something like that, that people...	
P46	P46: Yeah, anyway, like, my doctor's surgery has, like, a.	C257 - Suggestion for guide to be distributed in health environments
	Kasia Howley: Yeah, yeah.	
P46	P46: that something like that would be fine to put in like a little leaflet and.	
	Kasia Howley: Yeah, yeah.	
	Kasia Howley: And, like, musician-wise do you think it would be well received?	
P12	P12: Yeah, definitely. It'd be helpful for, like, other people in the band that aren't singers as well.	C240 - Relevance of guide for those working with and alongside singers
	Kasia Howley: That's a really good point	
P46	P46: Mhmh Yeah. In schools, studios, yeah.	
	Kasia Howley: Is there anything you'd change about it? That could be visually, or the format or content.	
	Kasia Howley: Is digital the best way,	
	Kasia Howley or a visual poster? Or handout?	
P12	P12: Dont know really!	
P46	P46: I like it digital, but I think a poster to have in...	C242 - Suggestion for interactive and other formats, such as quizzes, ads or digital links to helpful aids
P46	P46: Studios and things like that, where you are teaching, and...	
P46	P46: People passing is good!	
	Kasia Howley: Yeah. Yeah.	
P12	P12: Yeah, I really like the format of it because it makes it easy to digest.	C72 - Clear and accessible design
P46	P46: Mhmh And go through. It's easy to follow along, yeah.	C186 - Cognitive overload has been reduced through the design
	Kasia Howley: I guess that's it then! Anything else to add on before we finish?	
	Kasia Howley: Or about anything vocal fatigue related!	
P46	P46: No, I'm just having another look through.	
P12	P12: Like I say, I think the big one for me has been that thing of not, of the conditioning the voice	
	Kasia Howley: Yes.	
P12	P12: That's like anything. It's like use it or lose it sometimes, isn't it?	C315 - Taking a break reduces stamina/resilience
	Kasia Howley: yeah!	

PARTICIPANT ID	RAW DATA	FIRST CYCLE CODE
P46	P46: Yeah, because yeah, yeah, it's nice. It's good to check in, et cetera.	
	Kasia Howley: Maybe I could change the phrasing of maintenance, I quite like that you said conditioning!	
P46	P46: Yeah. Nice.	
	Kasia Howley: Well, thank you both!	
	Kasia Howley: I'll stop the recording now if you're both okay with that.	
P46	P46: mmmm	
P12	P12: yeah.	

Appendix J - Questionnaire Coding

KEY

COLOUR	ROLE
	MUSIC PRODUCER
	MUSICAL DIRECTOR
	STUDENT / GRADUATE
	MUSICIAN
	MUSICAL THEATRE PERFORMER

ANALYSIS
QUALITATIVE CODING

Participant ID	Participant Consent	Which of the following best describes your primary role?	Note: Questionnaire wording condensed for formatting purposes. Weekly singing hours during training / periods of professional work	Note: Questionnaire wording condensed for formatting purposes. Weekly hours of other external / professional voice use	How familiar are you with the concept of vocal fatigue?	Please describe vocal fatigue in your own words.	QUALITATIVE CODING
P 1	I consent to participate in this study	Professional music producer			Somewhat familiar	Tiredness from overuse or misuse of voice	C284 - Overuse of voice C13 - Feeling tired
P 2	I consent to participate in this study	Professional music producer			Somewhat familiar	I would say it's like fatiguing a muscle. The more you exercise it the more tired it gets and the less function you get out of it.	C188 - Comparison of vocal fatigue to muscular fatigue/fitness
P 3	I consent to participate in this study	Student / 2026 graduate	11 - 15 hours	21 - 25 hours	Somewhat familiar	The depreciation of the voice overtime due to numerous variables including but not limited to strain, overuse, improper support, improper breathing, physiology and illness.	C284 - Overuse of voice C319 - Lack of breath support leading to vocal fatigue C209 - Negative connotations towards vocal fatigue
P 4	I consent to participate in this study	Student / 2026 graduate	11 - 15 hours	21 - 25 hours	Very familiar	Vocal fatigue for me is when it takes more effort than usual to make a sound and having to lean towards unhealthy ways to create a sound.	C120 - Increase in effort required to produce sound
P 5	I consent to participate in this study	Student / 2026 graduate	6 - 10 hours	6 - 10 hours	Somewhat familiar	the overuse of your voice which leads to tiredness	C284 - Overuse of voice
P 6	I consent to participate in this study	Student / 2026 graduate	6 - 10 hours	6 - 10 hours	Somewhat familiar	Tiredness in the voice, often from overuse, illness or general fatigue etc.	C284 - Overuse of voice C13 - Feeling tired
P 7	I consent to participate in this study	Student / 2026 graduate	11 - 15 hours	11 - 15 hours	Somewhat familiar	Vocal fatigue is to me where the voice has been used a lot and is not at its usual 100%. Making it harder to achieve certain aspects of the voice which usually happen much easier. Eg. Belting/mix/higher register work.	C154 - Voice not working at full potential
P 8	I consent to participate in this study	Professional voice user - Singer/ musician	6 - 10 hours	26 - 30 hours	Very familiar	Losing a voice, strained voice. Losing identity.	C175 - Voice as identity C320 - Vocal fatigue presenting as lost voice
P 9	I consent to participate in this study	Professional voice user - Musical theatre performer	21 - 25 hours	Less than 5 hours	Very familiar	When my voice feels swollen or tired, not great closure on the vocal folds, not working properly	C271 - Feeling of swollen vocal folds C126 - Lack of vocal fold closure
P 10	I consent to participate in this study	Professional voice user - Musical theatre performer	11 - 15 hours	21 - 25 hours	Very familiar	Vocal fatigue is similar to any other type of fatigue. When exercising or using your voice in large amounts or by stressing your range over time, vocal fatigue can occur by affecting your voices ability to perform at the standard it usually does. Whether it be the voice failing altogether, or losing range or power in the voice.	C188 - Comparison of vocal fatigue to muscular fatigue/fitness C290 - Lack of vocal power
P 11	I consent to participate in this study	Professional voice user - Musical theatre performer	16 - 20 hours	11 - 15 hours	Somewhat familiar	Tiredness/ reduced usage over a prolonged period	C13 - Feeling tired
P 12	I consent to participate in this study	Professional voice user - Singer/ musician	6 - 10 hours	Less than 5 hours	Very familiar	Loss of range, clarity, power and a distinct "scratchy-ness/breathiness"	C16 - Reduced vocal flexibility and range C17 - Reduced vocal clarity C155 - Audible signs of vocal fatigue
P 13	I consent to participate in this study	Professional voice user - Musical theatre performer	6 - 10 hours	16 - 20 hours	Very familiar	sore throat meaning I struggle to audition and also keep up my side job of fitness instructing as it's having to project over loud music	C11 - "shouting over louder music" C194 - Sore throat OR vocal fatigue? C300 - Vocal fatigue affecting ability to perform and lifestyle
P 14	I consent to participate in this study	Professional voice user - Musical theatre performer	16 - 20 hours	6 - 10 hours	Very familiar	Tiredness or change in your voice through excessive use	C13 - Feeling tired

Participant ID	Participant Consent	Which of the following best describes your primary role?	Note: Questionnaire wording condensed for formatting purposes. Weekly singing hours during training / periods of professional work	Note: Questionnaire wording condensed for formatting purposes. Weekly hours of other external / professional voice use	How familiar are you with the concept of vocal fatigue?	Please describe vocal fatigue in your own words.	QUALITATIVE CODING
P 15	I consent to participate in this study	Professional voice user - Singer/ musician	16 - 20 hours	Less than 5 hours	Very familiar	The physical feeling is almost like an 'ache' in my larynx	C89 - Sensation of tightness/aching around tongue and laryngeal region
P 16	I consent to participate in this study	Student / 2026 graduate	Less than 5 hours	Less than 5 hours	Very familiar	Painful burning sensation	C321 - Vocal fatigue causing a burning sensation
P 17	I consent to participate in this study	Professional voice user - Musical theatre performer	More than 30 hours	11- 15 hours	Very familiar	Tired voice - overworked/overused voice	C284 - Overuse of voice
P 18	I consent to participate in this study	Professional musical director			Very familiar	Overuse of muscles involved in singing to the point of when it is difficult to make a clear sound, to the point of straining to maintain a usual sound	C284 - Overuse of voice C120 - Increase in effort required to produce sound
P 19	I consent to participate in this study	Professional voice user - Singer/ musician	11 - 15 hours	Less than 5 hours	Very familiar	Essentially, outside of illness and injury, I would say that vocal fatigue is an umbrella term generally coined when a voice has been overused OR used incorrectly. This fatigue usually manifests as inflammation, making it harder for the folds to close and vibrate efficiently. It then becomes a knock-on effect because the singer, who is likely becoming stressed about feeling fatigued, typically starts to fight against an instrument which is less flexible. I.E. straining, forcing air pressure. The inflammation increases and the risk of injury becomes greater. More often than not, fatigue happens because of a lack of A: hydration and/or B: good technique. There is also an argument to be made for fatigue sometimes being an almost unavoidable result of a voice dealing with "exceptionally" demanding material on a repeated day-to-day basis.. but again, I'd argue that this still boils down to lack of technique/strength.	C226 - "vocal fatigue is an umbrella term" C284 - Overuse of voice C32 - Too much vocal effort C126 - Lack of vocal fold closure C189 - Poor technique causing fatigue C223 - Industries make vocal fatigue almost inevitable
P 20	I consent to participate in this study	Professional voice user - Singer/ musician	6 - 10 hours	6 - 10 hours	Heard of it but unsure of its' meaning	Over use or 'pushing' the larynx to hard.	C284 - Overuse of voice
P 21	I consent to participate in this study	Professional musical director			Somewhat familiar	When a person's voice isn't functioning the way it usually does due to excessive use	C154 - Voice not working at full potential
P 22	I consent to participate in this study	Student / 2026 graduate	6 - 10 hours	6 - 10 hours	Somewhat familiar	Voice feeling tight, tired or sore due to overuse and improper care	C89 - Sensation of tightness/aching around tongue and laryngeal region C284 - Overuse of voice
P 23	I consent to participate in this study	Professional voice user - Singer/ musician	6 - 10 hours	Less than 5 hours	Somewhat familiar	The voice becoming increasingly tired due to overuse/improper use	C284 - Overuse of voice C189 - Poor technique causing fatigue
P 24	I consent to participate in this study	Professional music producer			Heard of it but unsure of its' meaning	Where the muscles associated with singing are overused	C284 - Overuse of voice
P 25	I consent to participate in this study	Professional music producer			Somewhat familiar	Straining your voice/vocal chords - maybe not warming up properly or just not resting it properly	C227 - Lack of proper warm up causing vocal fatigue
P 26	I consent to participate in this study	Professional voice user - Singer/ musician	11 - 15 hours	6 - 10 hours	Very familiar	Vocal fatigue for me is the tightening of vocal muscles including in the through mouth and jaw, but occasionally in the chest and abdomen area. This can start as a mild discomfort including a feeling of dryness in the throat, leading to more severe symptoms such as loss in vocal range, tonality and extreme tension in the jaw and neck.	C89 - Sensation of tightness/aching around tongue and laryngeal region C16 - Reduced vocal flexibility and range
P 27	I consent to participate in this study	Professional voice user - Musical theatre performer	21 - 25 hours	Less than 5 hours	Somewhat familiar	When your voice is feeling tired from overworking it. May get sore throat/ range not as clear as normal.	C284 - Overuse of voice C194 - Sore throat OR vocal fatigue?
P 28	I consent to participate in this study	Student / 2026 graduate	6 - 10 hours	11- 15 hours	Somewhat familiar	Feeling vocally tired	C17 - Reduced vocal clarity C228 - "Feeling vocally tired"
P 29	I consent to participate in this study	Professional voice user - Musical theatre performer	11 - 15 hours	11- 15 hours	Somewhat familiar	When your voice becomes tired due to over use.	C284 - Overuse of voice

Participant ID	Participant Consent	Which of the following best describes your primary role?	Note: Questionnaire wording condensed for formatting purposes. Weekly singing hours during training / periods of professional work	Note: Questionnaire wording condensed for formatting purposes. Weekly hours of other external / professional voice use	How familiar are you with the concept of vocal fatigue?	Please describe vocal fatigue in your own words.	QUALITATIVE CODING
P 30	I consent to participate in this study	Professional music producer			Very familiar	A tired voice that has become strained. Resulting in a weaker, harsher and sometimes more breathier voice. That has less volume or reduced vocal range	C16 - Reduced vocal flexibility and range C13 - Feeling tired
P 31	I consent to participate in this study	Student / 2026 graduate	6 - 10 hours	6 - 10 hours	Very familiar	Vocal fatigue is the overuse of the voice which makes it tired, weak and effort to talk. It creates discomfort especially when trying to sing. Hydration and vocal rest is needed as a solution.	C284 - Overuse of voice C229 - Vocal fatigue causing discomfort C197 - Limited knowledge of management strategies
P 32	I consent to participate in this study	Professional voice user - Musical theatre performer	11 - 15 hours	21 - 25 hours	Somewhat familiar	The overworking of your voice to the point where usual usage becomes difficult and uncomfortable.	C284 - Overuse of voice C229 - Vocal fatigue causing discomfort
P 33	I consent to participate in this study	Professional voice user - Singer/ musician	21 - 25 hours	Less than 5 hours	Somewhat familiar	for me, vocal fatigue is not only physical but mental too. it's the feeling of losing your creativity and manipulation of your voice from overuse, as well as the physical signs which for me include constant clearing of the throat, a snotty nose, and naturally speaking with more vocal fry	C245 - Vocal fatigue significantly mental factor C284 - Overuse of voice
P 34	I consent to participate in this study	Student / 2026 graduate	11 - 15 hours	6 - 10 hours	Very familiar	The voice slowly being run down by consistent use	C284 - Overuse of voice
P 35	I consent to participate in this study	Student / 2026 graduate	16 - 20 hours	21 - 25 hours	Somewhat familiar	I think it is when your voice is used so much it cannot sustain a healthy sound as the muscles used to support the vocal folds are too tired.	C284 - Overuse of voice C322 - Muscles involved in voice production too tired to support sound
P 36	I consent to participate in this study	Professional musical director			Very familiar	A voice suffering from over use but not necessarily in terms of hours. It can be from exacerbated use or use without sufficient hydration or warmup.	C284 - Overuse of voice C227 - Lack of proper warm up causing vocal fatigue
P 37	I consent to participate in this study	Student / 2026 graduate	6 - 10 hours	6 - 10 hours	Very familiar	Pain and discomfort in your vocal chords due to overuse	C229 - Vocal fatigue causing discomfort C284 - Overuse of voice
P 38	I consent to participate in this study	Professional musical director			Heard of it but unsure of its' meaning	I imagine vocal fatigue to be a clinical diagnosis of singers whose singing voices are so tired that their vocal performance is significantly negatively affected.	C323 - "vocal fatigue as a clinical diagnosis" C300 - Vocal fatigue affecting ability to perform and lifestyle
P 39	I consent to participate in this study	Professional voice user - Musical theatre performer	6 - 10 hours	Less than 5 hours	Somewhat familiar	Voice struggling because of overuse, voice feeling "tired"	C228 - "Feeling vocally tired" C284 - Overuse of voice
P 40	I consent to participate in this study	Professional voice user - Singer/ musician	16 - 20 hours	6 - 10 hours	Somewhat familiar	Vocal fatigue occurs when you have over-used you voice and can no longer use it in the desired function.	C284 - Overuse of voice C300 - Vocal fatigue affecting ability to perform and lifestyle

Participant ID	Participant Consent	Which of the following best describes your primary role?	Note: Questionnaire wording condensed for formatting purposes. Weekly singing hours during training / periods of professional work	Note: Questionnaire wording condensed for formatting purposes. Weekly hours of other external / professional voice use	How familiar are you with the concept of vocal fatigue?	Please describe vocal fatigue in your own words.	QUALITATIVE CODING
P 41	I consent to participate in this study	Professional voice user - Musical theatre performer	26 - 30 hours	21 - 25 hours	Very familiar	More effort to produce sound, physical tiredness and muscle fatigue making producing sound feel effortful, less closure, limited range	C120 - Increase in effort required to produce sound C126 - Lack of vocal fold closure C16 - Reduced vocal flexibility and range
P 42	I consent to participate in this study	Professional voice user - Musical theatre performer	11 - 15 hours	Less than 5 hours	Heard of it but unsure of its' meaning	The muscles around the voice become tired and unable to maintain strong supported sound	C322 - Muscles involved in voice production too tired to support sound
P 43	I consent to participate in this study	Professional voice user - Singer/musician	11 - 15 hours	6 - 10 hours	Very familiar	I suffer from it a lot. As a frequent singer in venues in and around London, I suffer from voice loss, tiredness, dryness and general raspy sounding speaking voice	C320 - Vocal fatigue presenting as lost voice C155 - Audible signs of vocal fatigue
P 44	I consent to participate in this study	Professional musical director			Heard of it but unsure of its' meaning	My understanding of vocal fatigue is how I understand any muscle fatigue that you might find in sports, often arising through over use of muscles or consistent poor technique / strain	C188 - Comparison of vocal fatigue to muscular fatigue/fitness
P 45	I consent to participate in this study	Professional music producer			Very familiar	Vocal fatigue is the natural exhaustion of vocal chords and muscles in and around the larynx after extended use	C284 - Overuse of voice
P 46	I consent to participate in this study	Professional voice user - Singer/musician	16 - 20 hours	6 - 10 hours	Very familiar	For me it is a general malaise of my larynx and throat...But I also just become very tired and sore in general.	C89 - Sensation of tightness/aching around tongue and laryngeal region
P 47	I consent to participate in this study	Professional music producer			Very familiar	For me vocal fatigue is when you're singing something quite resting for a long period of time. Eg a double chorus and by half way through that double chorus you're struggling to reach the higher notes that were easier at the beginning of the song. A short rest (guitar solo/instrumental) can help me personally to regain some of that back.	C118 - Repetitive voice use C120 - Increase in effort required to produce sound
P 48	I consent to participate in this study	Professional music producer			Very familiar	The point at which a vocalist is no longer able to perform at their optimum as a result of over-use, inefficient technique, poor maintenance or malades, resulting in undesirable performances.	C154 - Voice not working at full potential C284 - Overuse of voice C189 - Poor technique causing fatigue
P 49	I consent to participate in this study	Student / 2026 graduate	21 - 25 hours	More than 30 hours	Very familiar	The tiring of your voice and the muscles surrounding it over a period of time, due to overuse or strain.	C284 - Overuse of voice C322 - Muscles involved in voice production too tired to support sound
P 50	I consent to participate in this study	Professional musical director			Very familiar	Unhealthy over-use of the voice to the point of acquiring detrimental symptoms for the voice in further usage	C284 - Overuse of voice
P 51	I consent to participate in this study	Professional music producer			Very familiar	For me, vocal fatigue takes a few forms and can be both mental and physical. There is the classic high note that takes a few goes to get right, and sometimes seems elusive. There is time based fatigue at the end of the session that is perhaps more a tired brain, that finds pitch harder. Then there is good old fashioned mental block, where something simple becomes unattainable.	C245 - Vocal fatigue significantly mental factor C208 - Vocal fatigue described using other words
P 52	I consent to participate in this study	Professional musical director			Very familiar	Vocal Fatigue is when the muscles that work together to produce voice have been overworked or abused (pushed beyond their normal limitations) and struggle to produce sound efficiently.	C209 - Negative connotations towards vocal fatigue C284 - Overuse of voice

Participant ID	Participant Consent	Which of the following best describes your primary role?	Note: Questionnaire wording condensed for formatting purposes. Weekly singing hours during training / periods of professional work	Note: Questionnaire wording condensed for formatting purposes. Weekly hours of other external / professional voice use	How familiar are you with the concept of vocal fatigue?	Please describe vocal fatigue in your own words.	QUALITATIVE CODING
P 53	I consent to participate in this study	Professional musical director			Somewhat familiar	Vocal fatigue is experienced by singers when they over-exert or over-use their voice. They lose power and control over their voice and are unable to perform to neither their usual standard, nor with their usual technique. Performing during vocal fatigue can lead to injury.	C284 - Overuse of voice C290 - Lack of vocal power C119 - Lack of vocal control C324 - "Performing during vocal fatigue can lead to injury."
P 54	I consent to participate in this study	Professional musical director			Very familiar	Just like any other muscle fatigue, when the voice is over-used without the proper warm up or cool down and it gets tired	C188 - Comparison of vocal fatigue to muscular fatigue/fitness C284 - Overuse of voice C227 - Lack of proper warm up causing vocal fatigue
P 55	I consent to participate in this study	Professional music producer			Very familiar	When your voice is tired	C228 - "Feeling vocally tired"
P 56	I consent to participate in this study	Professional voice user - Musical theatre performer	21 - 25 hours	Less than 5 hours	Very familiar	Tiredness weakness or strain after prolonged use of the voice	C118 - Repetitive voice use
P 57	I consent to participate in this study	Professional musical director			Very familiar	The overuse of the voice, especially in rehearsal periods or busy times eg. a heavy show schedule	C284 - Overuse of voice C1 - Demanding schedule
P 58	I consent to participate in this study	Professional music producer			Somewhat familiar	I've had friends who've described symptoms of vocal fatigue before. I believe it can lead to being unable to sing and in extreme cases voice loss.	C320 - Vocal fatigue presenting as lost voice
P 59	I consent to participate in this study	Professional voice user - Singer/musician	6 - 10 hours	Less than 5 hours	Very familiar	When you have been pushing too hard on the vocal folds, which dries them out. Reducing vocal range.	C88 - Vocal fatigue presenting as dehydration C16 - Reduced vocal flexibility and range
P 60	I consent to participate in this study	Professional voice user - Musical theatre performer	Less than 5 hours	6 - 10 hours	Very familiar	Feeling like I'm not able to fully reach the notes I want and not having as much power behind my voice	C16 - Reduced vocal flexibility and range C290 - Lack of vocal power

Participant ID	Do you believe you have ever experienced vocal fatigue?	Do you believe you have ever worked with a singer/performer who was experiencing vocal fatigue?	How confident do you feel in your ability to recognise vocal fatigue? 1 - Not confident at all 5 - Very confident	How confident would you feel in your ability to recognise if a singer/performer was vocally fatigued? 1 - Not confident at all 5 - Very confident	Please select any symptoms you have experienced when feeling vocally fatigued:	What factors do you believe may have contributed to you feeling vocally fatigued? Please list as many as you feel are relevant.	QUALITATIVE CODING
P 1		Yes		3			
P 2		Yes		2			
P 3	Yes		4		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Reduced control of the voice	Overuse, improper technique, strain, illness	C284 - Overuse of voice C189 - Poor technique causing fatigue C325 - Illness leading to vocal fatigue
P 4	Yes		5		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound;Reduced control of the voice	Excessive shouting Alcohol Strenuous singing Whispering	C24 - Recreational habits & voice use C33 - Different demands of material
P 5	Yes		3		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound	overuse, not warming up/cooling down properly, over exertion of range	C284 - Overuse of voice 227 - Lack of proper warm up causing vocal fatigue
P 6	Yes		4		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound;Reduced control of the voice	Illness, physical and mental exhaustion, improper warm-up, lack of proper technique.	C189 - Poor technique causing fatigue C325 - Illness leading to vocal fatigue C227 - Lack of proper warm up causing vocal fatigue
P 7	Yes		4		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound;Reduced control of the voice	Overuse of the voice. Lack of care for the voice (nightsout/drinking)	C284 - Overuse of voice C24 - Recreational habits & voice use
P 8	Yes		4		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound;Reduced control of the voice	Stress, sickness, depression, tiredness	C326 - Vocal fatigue linked to mental health C325 - Illness leading to vocal fatigue
P 9	Yes		5		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound;Reduced control of the voice	Simply working sometimes if the work is demanding, not been on top of recovery and warm up/cool down as well as hydration, if I stay out after a show and talk in a loud environment	C8 - High vocal workload C2 - Importance of a self developed warm up C218 - Importance of cool downs C24 - Recreational habits & voice use
P 10	Yes		4		Discomfort in the laryngeal region;Reduced vocal flexibility;Increased vocal effort required to produce sound	Singing and extremities of my range for long periods of time when performing difficult vocal roles.	C33 - Different demands of material
P 11	Yes		3		Reduced overall vocal power;Reduced vocal flexibility;Increased vocal effort required to produce sound;Reduced control of the voice	Poor sound mix leading to pushing voice /touring or show schedule without adequate rest	C313 - Poor monitoring/sound effects vocal performance/fatigue C264 - Inadequate time to implement vocal rest
P 12	Yes		5		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound;Reduced control of the voice	Smoking, dehydration, general tiredness from poor sleep, overuse through a lot of gigging	C24 - Recreational habits & voice use C327 - Dehydration causing vocal fatigue C284 - Overuse of voice
P 13	Yes		5		Discomfort in the laryngeal region	lack of technique when in stressed situations	C189 - Lack of technique causing fatigue
P 14	Yes		4		Reduced overall vocal power;Reduced vocal flexibility;Increased vocal effort required to produce sound;Reduced control of the voice	Mainly regularly using my voice, especially when ill or tired	C325 - Illness leading to vocal fatigue

Participant ID	Do you believe you have ever experienced vocal fatigue?	Do you believe you have ever worked with a singer/performer who was experiencing vocal fatigue?	How confident do you feel in your ability to recognise vocal fatigue? 1 - Not confident at all 5 - Very confident	How confident would you feel in your ability to recognise if a singer/performer was vocally fatigued? 1 - Not confident at all 5 - Very confident	Please select any symptoms you have experienced when feeling vocally fatigued:	What factors do you believe may have contributed to you feeling vocally fatigued? Please list as many as you feel are relevant.	QUALITATIVE CODING
P 15	Yes		5		Discomfort in the laryngeal region; Increased vocal effort required to produce sound	Overuse - especially after performing at louder venues where I have been competing with poor monitoring or loud instrumentation.	C313 - Poor monitoring/sound effects vocal performance/fatigue C284 - Overuse of voice
P 16	Yes		5		Discomfort in the laryngeal region; Reduced overall vocal power; Reduced vocal flexibility; Increased vocal effort required to produce sound	Anxiety, mental health, acid reflux	C326 - Vocal fatigue linked to mental health
P 17	Yes		5		Discomfort in the laryngeal region; Reduced overall vocal power; Reduced vocal flexibility; Temporary loss of voice; Increased vocal effort required to produce sound; Reduced control of the voice	Lack of warm up / cool down in rehearsals. Overusing my voice. Singing in a rehearsal room trying to be heard over a piano - Rather than being mic'd on stage.	C2 - Importance of a self developed warm up C218 - Importance of cool downs C284 - Overuse of voice C178 - Environmental conditions contributing to vocal fatigue
P 18		Yes		4			
P 19	Yes		5		Reduced overall vocal power; Reduced vocal flexibility; Temporary loss of voice; Increased vocal effort required to produce sound; Reduced control of the voice	Refer to earlier list, but: Lack of hydration Incorrect warm up Sub-par onstage monitoring (though it's really the singer's job to be able to recognise this and sing from FEELING rather than always listening) Singing on the passaggio area for a prolonged amount of time with little to no breaks to reset. (Top tenor lines typically do this)	C8 - High vocal workload C2 - Importance of a self developed warm up C33 - Different demands of material C313 - Poor monitoring/sound effects vocal performance/fatigue C327 - Dehydration causing vocal fatigue
P 20	Yes		2		Discomfort in the laryngeal region; Reduced overall vocal power; Reduced vocal flexibility; Temporary loss of voice; Increased vocal effort required to produce sound; Reduced control of the voice	Singing too hard and for too long, with not enough rest between.	C8 - High vocal workload C264 - Inadequate time to implement vocal rest C284 - Overuse of voice
P 21		Yes		4			
P 22	Yes		3		Discomfort in the laryngeal region; Temporary loss of voice; Increased vocal effort required to produce sound; Reduced control of the voice	During [third year show rehearsals] we were singing for the first week, full out 6 hours a day and everyone suffered.	C8 - High vocal workload
P 23	Yes		5		Reduced overall vocal power; Reduced vocal flexibility; Temporary loss of voice; Increased vocal effort required to produce sound; Reduced control of the voice	Having the flu / hayfever	C325 - Illness leading to vocal fatigue
P 24		Unsure		1			
P 25		Yes		4			
P 26	Yes		5		Discomfort in the laryngeal region; Reduced overall vocal power; Reduced vocal flexibility; Increased vocal effort required to produce sound; Reduced control of the voice	Bad technique (not using correct vocal registers), illness particularly acid reflux and inner ear conditions (such as glue ear), incorrect posture, incorrect breathing, incorrect monitoring setup, excitement as well as generally "over performing".	C325 - Illness leading to vocal fatigue C189 - Lack of technique causing fatigue
P 27	Yes		3		Discomfort in the laryngeal region; Reduced vocal flexibility; Temporary loss of voice; Increased vocal effort required to produce sound	Teaching dance alongside performing job- raising voice over music	C11 - "shouting over louder music"
P 28	Yes		4		Reduced overall vocal power; Reduced vocal flexibility; Increased vocal effort required to produce sound	Speaking or singing a lot, after shouting, sometimes when singing using different placement because the muscles are working harder in a new place	C33 - Different demands of material C284 - Overuse of voice
P 29	Yes		3		Discomfort in the laryngeal region; Reduced overall vocal power; Reduced vocal flexibility; Increased vocal effort required to produce sound	Haze during a show. During tech rehearsals having to constantly sing backing vocals at full volume due to sound check for 8 hours a day.	C8 - High vocal workload C178 - Environmental conditions contributing to vocal fatigue

Participant ID	Do you believe you have ever experienced vocal fatigue?	Do you believe you have ever worked with a singer/performer who was experiencing vocal fatigue?	How confident do you feel in your ability to recognise vocal fatigue? 1 - Not confident at all 5 - Very confident	How confident would you feel in your ability to recognise if a singer/performer was vocally fatigued? 1 - Not confident at all 5 - Very confident	Please select any symptoms you have experienced when feeling vocally fatigued:	What factors do you believe may have contributed to you feeling vocally fatigued? Please list as many as you feel are relevant.	QUALITATIVE CODING
P 30		Yes		5			
P 31	Yes		4		Increased vocal effort required to produce sound; Reduced control of the voice	Dehydration, overuse of the voice without proper vocal and physical warm up, tightness in jaw and trying to sing without releasing this tension.	C2 - Importance of a self developed warm up C327 - Dehydration causing vocal fatigue C284 - Overuse of voice C294 - Vocal fatigue manifesting as muscular tension
P 32	Yes		4		Discomfort in the laryngeal region; Reduced overall vocal power; Increased vocal effort required to produce sound; Reduced control of the voice	Shouting, Talking excessively. Singing excessively. Not doing a vocal warm up/ cool down.	C2 - Importance of a self developed warm up C218 - Importance of cool downs C284 - Overuse of voice
P 33	Yes		3		Discomfort in the laryngeal region; Reduced overall vocal power; Reduced vocal flexibility; Temporary loss of voice; Increased vocal effort required to produce sound; Reduced control of the voice	working on a cruise ship as a singer. long days and bad air conditioning / humidity	C178 - Environmental conditions contributing to vocal fatigue
P 34	Yes		5		Reduced overall vocal power; Reduced vocal flexibility; Temporary loss of voice; Reduced control of the voice	Over use / illness	C325 - Illness leading to vocal fatigue C284 - Overuse of voice
P 35	Yes		4		Discomfort in the laryngeal region; Reduced overall vocal power; Reduced vocal flexibility; Increased vocal effort required to produce sound; Reduced control of the voice	Excessive dance around singing training- neck and abdominal are fatigued Singing at all hours of the day sometimes from 8am to as late as 10pm to sustain the amount of required practice meaning my voice doesn't have time to recover Having a busy schedule so I am dehydrated or unable to cool down properly after a long vocal day	C8 - High vocal workload C284 - Inadequate time to implement vocal rest C327 - Dehydration causing vocal fatigue C284 - Overuse of voice C1 - Demanding schedule
P 36		Yes		4			
P 37	Yes		4		Discomfort in the laryngeal region; Reduced overall vocal power; Reduced vocal flexibility; Temporary loss of voice; Increased vocal effort required to produce sound; Reduced control of the voice	Overuse of the vocals including excessive singing practice and singing/ talking for work in children's entertainment	C8 - High vocal workload C284 - Overuse of voice
P 38		Yes		2			
P 39	Yes		4		Discomfort in the laryngeal region; Reduced overall vocal power; Reduced vocal flexibility; Increased vocal effort required to produce sound; Reduced control of the voice	Over singing (singing too much), not warming up properly, not cooling down properly, bad use of technique, not getting enough vocal rest in between shows.	C2 - Importance of a self developed warm up C218 - Importance of cool downs C284 - Inadequate time to implement vocal rest C284 - Overuse of voice C189 - Lack of technique causing fatigue
P 40	Yes		4		Discomfort in the laryngeal region; Reduced overall vocal power; Reduced vocal flexibility; Temporary loss of voice; Increased vocal effort required to produce sound; Reduced control of the voice	lack of warming up and down properly, not giving my voice enough rest between sets/gigs. Talking loudly immediately before and after singing due to environmental settings of the gigs. Singing for long periods throughout the week.	C8 - High vocal workload C2 - Importance of a self developed warm up C284 - Inadequate time to implement vocal rest C178 - Environmental conditions contributing to vocal fatigue

Participant ID	Do you believe you have ever experienced vocal fatigue?	Do you believe you have ever worked with a singer/performer who was experiencing vocal fatigue?	How confident do you feel in your ability to recognise vocal fatigue? 1 - Not confident at all 5 - Very confident	How confident would you feel in your ability to recognise if a singer/performer was vocally fatigued? 1 - Not confident at all 5 - Very confident	Please select any symptoms you have experienced when feeling vocally fatigued:	What factors do you believe may have contributed to you feeling vocally fatigued? Please list as many as you feel are relevant.	QUALITATIVE CODING
P 41	Yes		5		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound;Reduced control of the voice	Overuse, poor sound mix onstage needing to push, overworked with hours, not enough down time or room to recover, aircon in theatres, demanding schedules, composer writing unsustainable shows, having to work jons alongside performing, stress having an affect on the body and voice also	C8 - High vocal workload C33 - Different demands of material C313 - Poor monitoring/sound effects vocal performance/fatigue C264 - Inadequate time to implement vocal rest C284 - Overuse of voice C178 - Environmental conditions contributing to vocal fatigue C1 - Demanding schedules C9 - Multiple Professional Roles
P 42	Unsure		3		Reduced overall vocal power;Reduced vocal flexibility;Increased vocal effort required to produce sound	Pushing vocally during a show. Drinking the night after. Talking and staying up late.	C24 - Recreational habits & voice use
P 43	Yes		5		Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound	Poor monitoring or no IEMS at venues, not the best vocal technique	C313 - Poor monitoring/sound effects vocal performance/fatigue C189 - Lack of technique causing fatigue
P 44		Yes		5			
P 45		Yes		4			
P 46	Yes		4		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Increased vocal effort required to produce sound;Reduced control of the voice	Overdoing things...Showing off when it's really not warranted. Recently the heat has not helped as trying to stay hydrated during a run of gigs has been hard.	C327 - Dehydration causing vocal fatigue C284 - Overuse of voice
P 47		Yes		5			
P 48		Yes		4			
P 49	Yes		5		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound;Reduced control of the voice	Overuse of the voice, shouting, dehydration, illness, feeling tired, changes in menstrual cycle, stress and anxiety	C325 - Illness leading to vocal fatigue C327 - Dehydration causing vocal fatigue C284 - Overuse of voice C328 - Menstrual cycle and its relationship to vocal fatigue
P 50		Yes		4			
P 51		Yes		4			
P 52		Yes		5			

Participant ID	Do you believe you have ever experienced vocal fatigue?	Do you believe you have ever worked with a singer/performer who was experiencing vocal fatigue?	How confident do you feel in your ability to recognise vocal fatigue? 1 - Not confident at all 5 - Very confident	How confident would you feel in your ability to recognise if a singer/performer was vocally fatigued? 1 - Not confident at all 5 - Very confident	Please select any symptoms you have experienced when feeling vocally fatigued:	What factors do you believe may have contributed to you feeling vocally fatigued? Please list as many as you feel are relevant.	QUALITATIVE CODING
P 53		Yes		4			
P 54		Yes		3			
P 55		Yes		3			
P 56	Yes		4		Reduced overall vocal power;Reduced vocal flexibility;Reduced control of the voice	Bad sleep, lack of hydration, over use	C327 - Dehydration causing vocal fatigue C284 - Overuse of voice C278 - Sleep and its' relationship to vocal fatigue
P 57		Yes		4			
P 58		No		3			
P 59	Yes		5		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound;Reduced control of the voice	Not enough sleep. Not enough hydration. Pushing be made you don't have proper monitoring. Not warming up properly.	C2 - Importance of a self developed warm up C313 - Poor monitoring/sound effects vocal performance/fatigue C327 - Dehydration causing vocal fatigue C278 - Sleep and its' relationship to vocal fatigue
P 60	Yes		4		Discomfort in the laryngeal region;Reduced overall vocal power;Reduced vocal flexibility;Temporary loss of voice;Increased vocal effort required to produce sound	Lack of hydration and technique	C327 - Dehydration causing vocal fatigue C189 - Lack of technique causing fatigue

Participant ID	What factors do you believe may contribute to a singer/performer becoming vocally fatigued? Please list as many as you feel are relevant.	QUALITATIVE CODING	Do you use any strategies to manage vocal fatigue when it occurs?	If you answered yes or unsure, please detail these strategies below and how helpful you find them.	QUALITATIVE CODING	Are you aware of any strategies that may help a singer/performer to manage vocal fatigue when it occurs?
P 1	Long/arduous session recording Shouting Over exertion	C193 - Impact of long recording sessions C284 - Overuse of voice				No
P 2	Incorrect technique	C189 - Lack of technique causing fatigue				No
P 3			Yes	Withdrawal from singing/extensive on-voice talking, steaming, hydration, medicines/natural soothers, rest, voice work (e.g. alexander technique)	C104 - Vocal Rest C47 - Vocal steaming C86 - Hydration as strategy C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?) C333 - Productive voice work to manage vocal fatigue	
P 4			Yes	Steam Nebulise Vocal Rest Vocal Massages Light humming SOVT Work Vocal Creek Neck Stretching Water	C104 - Vocal Rest C47 - Vocal steaming C86 - Hydration as strategy C222 -Straw/SOVT work to manage the voice C49 -Nebulising C277 - Vocal massage to aid muscular tension	
P 5			Yes	I use vocal cooldowns and take rest breaks from singing/speaking when necessary	C104 - Vocal Rest C218 - Importance of cool downs	
P 6			Yes	Steaming, vocal rest, rest, hydration.	C104 - Vocal Rest C47 - Vocal steaming C86 - Hydration as strategy	
P 7			Yes	SOVT exercises. So helpful to gain flexibility and more control back into my voice	C222 -Straw/SOVT work to manage the voice	
P 8			Yes	Rest, hydration, top grade honey, gargling salt water, isolation.	C104 - Vocal Rest C86 - Hydration as strategy C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?)	
P 9			Yes	Steaming, nebulizing, bubbling, gentle closure work, hydration, vocal rest, more sleep	C104 - Vocal Rest C86 - Hydration as strategy C47 - Vocal steaming C49 - Nebulising C222 - Straw/SOVT work to manage the voice	
P 10			Yes	I usually warm down my voice by ending any performance evening with less strenuous vocal exercises.	C218 - Importance of cool downs	
P 11			Yes	Focusing on closure in warm ups and cool downs, trying to sleep as much as possible, lots of water, being mindful of using voice outside of work.	C86 - Hydration as strategy C218 - Importance of cool downs	
P 12			Yes	Straw work, occasional vocal steaming, warm-ups, singing in a lower key than usual, focusing on technique when fatigued	C47 - Vocal steaming C222 - Straw/SOVT work to manage the voice C334 - "focusing on technique when fatigued"	
P 13			Yes	pull back and try and not constrict	C335 - Reduce vocal effort when feeling fatigued	
P 14			Yes	Steaming, nebulising, straw and exercises	C47 - Vocal steaming C49 - Nebulising C222 - Straw/SOVT work to manage the voice	

Participant ID	What factors do you believe may contribute to a singer/performer becoming vocally fatigued? Please list as many as you feel are relevant.	QUALITATIVE CODING	Do you use any strategies to manage vocal fatigue when it occurs?	If you answered yes or unsure, please detail these strategies below and how helpful you find them.	QUALITATIVE CODING	Are you aware of any strategies that may help a singer/performer to manage vocal fatigue when it occurs?
P 15			Yes	Vocal steaming and mindful rest	C104 - Vocal Rest C47 - Vocal steaming	
P 16			Yes	Breathing exercises/ vocal exercises like zzzzz shhhh fffff	C333 - Productive voice work to manage vocal fatigue	
P 17			Yes	Vocal rest or reducing vocal effort when needed. Vocal rest in my day to day before a show.	C104 - Vocal Rest	
P 18	Long rehearsal sessions, insufficient breaks, lack of hydration, improper warm up/cool down, sustained use of register extremes, use of unfamiliar techniques	C1 - Demanding schedule C327 - Dehydration causing vocal fatigue C227 - Insufficient warm up causing vocal fatigue C39 - Stylistic vocal demands				Unsure
P 19			Yes	Rest. There is nothing better than complete 100% voice rest. Outside of that, tongue root and jaw massage, lots of hydration, including saline nebulising. Ibuprofen to lower inflammation but not to sing on. (However I have sung on it in special cases where I had no choice, but it requires careful use to not oversing)	C104 - Vocal Rest C99 - Self led vocal massage to aid fatigue C86 - Hydration as strategy C49 - Nebulising C336 - Suggested medication to manage inflammation	
P 20			Yes	Steaming, no talking, and just started to us a saline nebuliser.	C49 - Nebulising C47 - Vocal steaming	
P 21	Excessive singing & talking, illness, general physical fatigue, misuse of vocal technique, shouting, smoking	C284 - Overuse of voice C325 - Illness leading to vocal fatigue C189 - Lack of technique causing fatigue C24 - Recreational habits & voice use				Unsure
P 22			Yes	cool downs throughout the day, staying super hydrated and vocal rest when needed.	C218 - Importance of cool downs C86 - Hydration as strategy C104 - Vocal Rest	
P 23			Yes	Corvonia drops, vocal steamer, warm ups/cool downs	C47 - Vocal steaming C218 - Importance of cool downs C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?)	
P 24	Singing for too long, not doing vocal warm ups	C227 - Insufficient warm up causing vocal fatigue C8 - High vocal workload				No
P 25	Not warming up properly, pushing through when they should be resting their voice etc.	C227 - Insufficient warm up causing vocal fatigue C22 - Pushing through vocal difficulties				Yes
P 26			Yes	Back things off a bit, make sure I'm using correct vocal registers, vocal exercises during breaks if possible, lowering my jaw more as I move up my registers, altering posture.	C333 - Productive voice work to manage vocal fatigue	
P 27			Yes	Steaming, using nebuliser	C47 - Vocal steaming C49 - Nebulising	
P 28			Yes	Resting my voice, steaming, focusing on airflow when warming up and singing	C47 - Vocal steaming C104 - Vocal Rest C2 - Importance of a self developed warm up	
P 29			No			

Participant ID	What factors do you believe may contribute to a singer/performer becoming vocally fatigued? Please list as many as you feel are relevant.	QUALITATIVE CODING	Do you use any strategies to manage vocal fatigue when it occurs?	If you answered yes or unsure, please detail these strategies below and how helpful you find them.	QUALITATIVE CODING	Are you aware of any strategies that may help a singer/performer to manage vocal fatigue when it occurs?
P 30	Excessive vocal strain, pushing for notes outside of the singers natural range, over performing, long vocal sessions, a voice that has not been warmed up properly, singing in falsetto for too long. Dry air conditioned room. Headphones too loud forcing the singer to want to sing louder than required	C329 - Attempting material out of the singers capabilities C193 - Impact of long recording sessions C32 - Too much vocal effort C227 - Insufficient warm up causing vocal fatigue C178 - Environmental conditions contributing to vocal fatigue C181 - Effect of poor in ear monitor balance on performance				Yes
P 31			Yes	Facial/jaw massage to reduce tension and stiffness, I found it somewhat helpful but more of a temporary fix that was only beneficial for a while. However, in the time when I was the busiest, this did not help me as well as it normally would.	C99 - Self led vocal massage to aid fatigue	
P 32			Yes	Steaming, Resting voice, sirening vocal exercises to keep the voice moving.	C47 - Vocal steaming C104 - Vocal Rest	
P 33			Yes	nebuliser, sleep, warm drinks, vocal rest	C49 - Nebulising C104 - Vocal Rest	
P 34			Yes	Voice rest , remedies like gargle saltwater	C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?) C104 - Vocal Rest	
P 35			Unsure	I try to warm up as thoroughly and gently as possible When I have time I do a vocal cool down at the end of the day I implement release exercises for the body to help relieve the strain on the associated muscles If it is severe I will steam on a night before bed	C99 - Self led vocal massage to aid fatigue C100 - Longer warm ups when feeling fatigued C218 - Importance of cool downs	
P 36	Long hours. Not enough rest time in scheduling whether that be within a day or within a week. Too much pressure to perform at full performance mode too often (especially in situations when unnecessary during rehearsals/tech periods) Not enough sleep Not enough hydration Vocally pushing which can be from bad habit or from sound issues Battling against sound issues.	C1 - Demanding schedule C264 - Inadequate time to implement vocal rest C330 - Pressure for performers to always be "full out" C327 - Dehydration causing vocal fatigue C32 - Too much vocal effort C313 -Poor monitoring/sound effects vocal performance/fatigue				Yes
P 37			Yes	Resting the voice as much as possible, using natural remedies such as lemon, honey and ginger, nebulising	C49 - Nebulising C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?) C104 - Vocal Rest	
P 38	Over-singing (including singing for extended periods and singing too loud) Singing whilst exerting your body in other ways, including dance, movement and singing in unusual positions Psychological and emotional pressures both related to and unrelated to performance	C32 - Too much vocal effort C29 - Effect of dance and singing simultaneously on vocal fatigue C19 - Emotional impact on voice				No
P 39			Yes	Voice rest when I can (useful), steaming (really useful), sleeping as much as I possibly can, and eating raw ginger (mainly to make sure I stay healthy, but I genuinely feel like it helps my voice recover.)	C104 - Vocal Rest C47 - Vocal steaming C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?) C278 - Sleep and its' relationship to vocal fatigue	
P 40			Yes	Resting my voice, staying hydrated, doing steaming, using straw techniques, warming up and down properly, being aware of my volume and power in performances	C104 - Vocal Rest C47 - Vocal steaming C86 - Hydration as strategy C222 - Straw/SOVT work to manage the voice C2 - Importance of a self developed warm up	

Participant ID	What factors do you believe may contribute to a singer/performer becoming vocally fatigued? Please list as many as you feel are relevant.	QUALITATIVE CODING	Do you use any strategies to manage vocal fatigue when it occurs?	If you answered yes or unsure, please detail these strategies below and how helpful you find them.	QUALITATIVE CODING	Are you aware of any strategies that may help a singer/performer to manage vocal fatigue when it occurs?
P 41			Yes	Higher pitch speaking, vocal rest, steaming, nebulising, vocal massage, physical rest, hydration	C104 - Vocal Rest C47 - Vocal steaming C86 - Hydration as strategy C277 - Vocal massage to aid muscular tension	
P 42			Unsure	I usually steam and do very gentle warm ups to see how much range I have available	C47 - Vocal steaming C2 - Importance of a self developed warm up	
P 43			Yes	LaxVox, steaming, nebulising, hydrating as much as possible, as much rest as I can and trying not to talk (difficult !) all extremely imperative	C47 - Vocal steaming C86 - Hydration as strategy C222 - Straw/SOVT work to manage the voice	
P 44	Change of tone, change of breathing pattern, change / loss of technique, physical changes, thinness of sound	C155 - Audible signs of vocal fatigue C189 - Lack of technique causing fatigue C95 - Vocal fatigue causing physical tension				Unsure
P 45	Longer Sessions, being somewhere loud the night before so they had to raise volume prior to the recording session	C193 - Impact of long recording sessions C24 - Recreational habits & voice use				No
P 46			Yes	Warm ups/cool downs, steaming, hydration and hydration tablets.	C2 - Importance of a self developed warm up C47 - Vocal steaming C86 - Hydration as strategy	
P 47	Inability to understand what's happening. Not knowing what your voice is and isn't capable of. E.g if a song is to high, change the key to suit you. Sometimes just needing a short break inbetween parts or songs in general can help.	C195 - Limited knowledge surrounding vocal fatigue C329 - Attempting material out of the singers capabilities				Unsure
P 48	Over-use of the voice. Often extended performance slots with physical fatigue reducing their technical efficiency. Poor technical understanding. Poor breath-work, leading to poor technique. Illness. Overall physical fatigue/lack of sleep. Substance use. Poor maintenance between sessions. Doing stupid stuff like partying and screaming all the time - seen it! 🤔	C284 - Overuse of voice C44 - Uncertainty about safe vocal technique C278 - Sleep and its' relationship to vocal fatigue C24 - Recreational habits & voice use				Yes
P 49			Yes	Making sure to increase sleep, drinking more water, steaming in the morning and nebulising throughout the day for extra hydration, going on vocal rest. All of these things I have done over the past couple of years and they really help me to maintain my voice and prevent and support vocal fatigue.	C278 - Sleep and its' relationship to vocal fatigue C86 - Hydration as strategy C136 - Steaming and nebulising for instant hydration C104 - Vocal Rest	
P 50	Unsatisfactory technique. Unsatisfactory monitoring leading to pushing the voice too far to be able to hear oneself.	C189 - Lack of vocal technique causing fatigue C313 - Poor monitoring/sound effects vocal performance/fatigue				Yes
P 51	Too many attempts at the most difficult part of the song. Too late in the day for the brain to be agile enough. The stress of not getting a note 'right'.	C69 - Personal pressure C118 - Repetitive voice use				Yes
P 52	Mental health. Life style. Sleep. Diet. Warm up and cool down routine. How many hours the voice is used for on a daily basis	C326 - Vocal fatigue linked to mental health C227 - Insufficient warm up causing vocal fatigue C24 - Recreational habits & voice use C8 - High vocal workload				Yes

Participant ID	What factors do you believe may contribute to a singer/performer becoming vocally fatigued? Please list as many as you feel are relevant.	QUALITATIVE CODING	Do you use any strategies to manage vocal fatigue when it occurs?	If you answered yes or unsure, please detail these strategies below and how helpful you find them.	QUALITATIVE CODING	Are you aware of any strategies that may help a singer/performer to manage vocal fatigue when it occurs?
P 53	"Pushing" the voice in volume to "compete" with loud instruments / voices / audiences. Not being able to rest the voice sufficiently. Poor technique. Singing whilst unwell or stressed.	C189 - Lack of vocal technique causing fatigue C326 - Vocal fatigue linked to mental health C264 - Inadequate time to implement vocal rest				Yes
P 54	Not hydrated enough, not warming up/cooling down, poor diet, straining/bad vocal technique	C189 - Lack of vocal technique causing fatigue C227 - Insufficient warm up causing vocal fatigue C327 - Dehydration causing vocal fatigue C331 - Impact of a poor diet on vocal fatigue				Yes
P 55	Stress, overuse, diet	C331 - Impact of a poor diet on vocal fatigue C284 - Overuse of voice				Yes
P 56			Yes	Rest and hydration	C104 - Vocal Rest C86 - Hydration as strategy	
P 57	Long rehearsal days...heavy show schedules. People (especially young people or children) not knowing how to look after their voices or what kind of stamina is required eg. Marking when applicable in a dance call	C1 - Demanding schedule C332 - Lack of knowledge around voice management				Yes
P 58	Too many gigs! Too many recording sessions! Potentially illness?	C1 - Demanding schedule				Yes
P 59			Yes	Hydrate and steaming. Vocal straw exercises for warm up and as much vocal rest as possible.	C86 - Hydration as strategy C104 - Vocal Rest C222 - Straw/SOVT work to manage the voice	
P 60			Yes	I don't use my chest voice as often and vocal rest	C104 - Vocal Rest C38 - Adapting vocally when tired	

Participant ID	If you answered yes or unsure, please detail these strategies below.	QUALITATIVE CODING	Do you use any strategies in an attempt to prevent vocal fatigue from occurring?	If you answered yes or unsure, please detail these strategies below and how effective you find them.	QUALITATIVE CODING
P 1	-				
P 2	-				
P 3			Yes	Steaming, nebulising where applicable, hydration, understanding the limits of ones voice to prevent overuse/strain, avoiding smoking/vaping, avoiding extensive alcohol intake, vocal warmups/downs, identifying the onset of vocal fatigue	C24 - Recreational habits & voice use C2 - Importance of a self developed warm up C234 - Importance of early identification of vocal fatigue C342 - Same strategies for both prevention and management
P 4			Yes	SOVT Work Massaging Sirening Neck Stretching	C342 - Same strategies for both prevention and management
P 5			Yes	fairly effective, complete vocal rest usually helps	C342 - Same strategies for both prevention and management
P 6			Yes	warming up effectively before singing, staying hydrated (especially when performing/ before a long day of singing), not overusing my talking voice if I feel I've had a long day of singing, not going 100% in songs if I feel I may have an illness coming along.	C342 - Same strategies for both prevention and management C2 - Importance of a self developed warm up
P 7			Yes	Steaming after vocally strenuous days. SOVT. Warm up/cool down	C342 - Same strategies for both prevention and management C47 - Vocal steaming
P 8			Yes	I drink an obscene amount of water. Avoiding people and talking. Trying not to be in dusty environments.	C178 - Environmental conditions contributing to vocal fatigue C24 - Recreational habits & voice use
P 9			Yes	Same as when I do have vocal fatigue, also vocal massage	C277 - Vocal massage to aid muscular tension
P 10			Yes	Always warm up. Always stay hydrated.	C2-Importance of a self developed warm up C86 - Hydration as strategy
P 11			Unsure		C343 - Limited prevention strategies
P 12			Yes	As above. I try to implement all of the above especially throughout busy periods of gigs. I noticed that when I don't do the preventative measures, I fatigue faster.	C342 -Same strategies for both prevention and management
P 13			Unsure	i don't warm up as much as i should	C2-Importance of a self developed warm up
P 14			Yes	Warming up and down correctly, and staying hydrated	C2-Importance of a self developed warm up C218 - Importance of cool downs

Participant ID	If you answered yes or unsure, please detail these strategies below.	QUALITATIVE CODING	Do you use any strategies in an attempt to prevent vocal fatigue from occurring?	If you answered yes or unsure, please detail these strategies below and how effective you find them.	QUALITATIVE CODING
P 15			Yes	When performing on my own I ensure I can hear myself clearly and I'm also mindful on weeks where I have multiple gigs of limiting my social events and avoiding anything that is vocally demanding.	C24 - Recreational habits & voice use
P 16			No	-	C343 - Limited prevention strategies
P 17			Yes	Doing personal vocal warmups and cool downs. Staying healthy and hydrated. Getting enough vocal rest and sleep in my schedule.	C2-Importance of a self developed warm up
P 18	If I notice vocal fatigue happening in a rehearsal I'm running, I change something they're doing - examples include use head voice instead of belt to mark a passage, learn passages either up or down an octave depending on what is comfortable, limiting time spent at extremes of the voice, use SOVR technique to mark passages, speak rhythmically rather than sing. It depends on the situation and what is being done	C38 - Adapt vocally to aid the voice when tired			
P 19			Yes	Technique. Correct, gentle warming up and down. Not over singing in rehearsal or tech runs. Minimizing voice use on days I'm not being paid to use it. The general rule of thumb for me is during a warm up, you should be using no more than 70% of your full capacity which you can then heighten during performance, so long as you've rehearsed at that level.	C189 - Lack of vocal technique causing fatigue C2 - Importance of a (self developed) warm up C32 - Too much vocal effort
P 20			No	-	C343 - Limited prevention strategies
P 21	Rest, and rehabilitative exercises as guided by a professional	C104 - Vocal Rest C337 - Understanding own knowledge and directing voice users to qualified professionals			
P 22			No	-	C343 - Limited prevention strategies
P 23			Yes	avoid meeting with people who are unwell, vocal rests	C325 - Illness and its relationship with vocal fatigue
P 24	-				
P 25	Avoiding caffeine and alcohol, warm water, herbal teas resting voice	C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?) C104 - Vocal Rest			
P 26			Yes	Regular vocal training, exercises, use of in ear monitoring. Making sure I have the correct mix in my monitoring.	C313 - Poor monitoring/sound effects vocal performance/fatigue C189 - Lack of vocal technique causing fatigue
P 27			Unsure	I sometimes do a vocal warm up prior to teaching but I should do this on a much more regular basis	C344 - Importance of warm ups before ANY voice use
P 28			No	-	C343 - Limited prevention strategies
P 29			Yes	I drink a lot of water and don't sing full out all the time.	C86 - Hydration as strategy C335 - Reduce vocal effort when feeling fatigued

Participant ID	If you answered yes or unsure, please detail these strategies below.	QUALITATIVE CODING	Do you use any strategies in an attempt to prevent vocal fatigue from occurring?	If you answered yes or unsure, please detail these strategies below and how effective you find them.	QUALITATIVE CODING
P 30	Plenty of water, proper warming up of the voice, easing into the session rather than tackling the big / harder notes first. vocal rest and reset, proper management of headphone levels.	C104 - Vocal Rest C86 - Hydration as strategy C100 - Longer warm ups/warm into sessions when feeling fatigued			
P 31			Unsure	I try to stay as hydrated as possible but often forget this when having a more singing- focused day compared to dance-focused days. I also do vocal warm ups before singing but want to progress these more.	C86 - Hydration as strategy C2 - Importance of a (self developed) warm up
P 32			Yes	Vocal warm ups. SLEEP.	C278 - Sleep and its' relationship to vocal fatigue C342 - Same strategies for both prevention and management
P 33			Yes	as above - nebulise, hot drinks, propolis, antihistamines, raw honey, sleep, vocal rest, humidifiers	C196 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?) C342 - Same strategies for both prevention and management
P 34			Yes	Nebulising / steaming	C49 - Nebulising C47 - Vocal steaming
P 35			No	-	C343 - Limited prevention strategies
P 36	Warming up and warming down Vocal massage Steaming Hydration Vocal rest	C227 - Vocal massage to aid muscular tension C86 - Hydration as strategy C104 - Vocal Rest C47 - Vocal steaming C2 - Importance of a self developed warm up			
P 37			Yes	Vocal warm ups AND cool downs before and after singing or long periods of talking, lemon herbal tea every morning	NEW: warm ups and cool downs, lemon tea on a morning(dupe)
P 38					
P 39			Yes	Gentle warm up with vocal straw (I've realised it's the "kindest" warm up for my voice), steam a few hours before singing (really helps), and doing a quick vocal cool down once I'm done, making sure to get the larynx back down (easy to forget but I do feel like it makes a difference.) And eat ginger!	C222 - Straw/SOVT work to manage the voice C342 - Same strategies for both prevention and management
P 40			Yes	making sure I warm up gently and slowly throughout the day so my voice is ready for evening performances. Staying hydrated	C342 - Same strategies for both prevention and management

Participant ID	If you answered yes or unsure, please detail these strategies below.	QUALITATIVE CODING	Do you use any strategies in an attempt to prevent vocal fatigue from occurring?	If you answered yes or unsure, please detail these strategies below and how effective you find them.	QUALITATIVE CODING
P 41			Yes	Voice rest in stages, hydration, marking when voice isn't needed, trying to schedule my week around my needs for example, it's usually heavier vocal use thurs-sat so I make sure Sunday is a silent day!	C342 - Same strategies for both prevention and management
P 42			Unsure	-	C343 - Limited prevention strategies
P 43			Yes	I try to only give 75% vocally and not feel like I need to belt constantly throughout the gig. Let the microphone take a bit of the responsibility (to a point)	C335 - Reduce vocal effort when feeling fatigued C345 - Work with the sound/equipment to enable reduction of vocal effort
P 44	I would be honest and say that I am not a professional, but suggest things like steaming, straw work, vocal rest (mute), seeing a professional for a massage or even a scope, lots of hydration and sleep	C337 - Understanding own knowledge and directing voice users to qualified professionals C47 - Vocal steaming C104 - Vocal Rest C222 - Straw/SOVT work to manage the voice			
P 45					
P 46			No	-	C343 - Limited prevention strategies
P 47	For me it's as I mentioned above. Needing a short time for my voice to recover in a song, during a solo for instance. Adjusting the sets in a live situation so you're not pushing your voice for a long period of time. And don't over think higher notes. Be relaxed and not tense when trying to hit them.	C338 - Finding moments within performances for recovery time			
P 48	Principally vocal rest, physical rest and a reliance on proper technique and breathwork. There can also be a point in my world where a bit of fatigue can change a performance in a good way, if I suits the song. We're searching for emotion as the primary driver when singing, not technique. Technique supports the emotion. So it's not always a 'problem', but needs to be the right song, right moment. Sometimes explaining that alone, IS a strategy.	C104 - Vocal Rest C189 - Lack of vocal technique causing fatigue C261 - Perception of using fatigue to enhance emotion			
P 49			Yes	Sleep, drinking more water, steaming and nebulising. Not singing when ill, making sure to warm up and cool down properly before singing. I make sure to do all of the basic requirements to keep the voice healthy as a preventative measure.	C2 -Importance of a (self developed) warm up C325 - Illness and its relationship with vocal fatigue C218 - Importance of cool downs
P 50	Rest. Hot water with honey and ginger. Straw breathing. Nebulising. Gentle rehabilitation using straw breathing, plus other exercises.	C104 - Vocal Rest C186 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?) C222 - Straw/SOVT work to manage the voice C49 - Nebulising			
P 51	Often repeated attempts at a high note can make matters worse. Moving on and coming back to it can help. Taking a longer run at the passage can help to give context. Explaining technically where the note is in relation to a previous note can help. A surprising amount of singers don't have a framework to get out of a jam.	C118 - Repetitive voice use (can be unhelpful)			
P 52	Steam. Physical exercise. Gentle sirens on 'Ng' or lip rolls. Shorter warm up sessions but more often throughout the day	C47 - Vocal steaming C339 - Physical exercise to support vocal fatigue C222 - Straw/SOVT work to manage the voice			

Participant ID	If you answered yes or unsure, please detail these strategies below.	QUALITATIVE CODING	Do you use any strategies in an attempt to prevent vocal fatigue from occurring?	If you answered yes or unsure, please detail these strategies below and how effective you find them.	QUALITATIVE CODING
P 53	Rest above everything else.	C104 - Vocal Rest			
P 54	Steam/nebulise/straw-work/vocal rest/sleep	C104 - Vocal Rest C47 - Vocal steaming C278 - Sleep and its' relationship to vocal fatigue C222 - Straw/SOVT work to manage the voice			
P 55	Rest	C104 - Vocal Rest			
P 56			Yes	Try to get good rest and hydration. Pretty effective	C342 - Same strategies for both prevention and management
P 57	Marking when applicable during choreography sessions. Regular breaks. Reminders to stay hydrated. Teaching children / young performers not to push. Support from a voice department on west end shows	C86 - Hydration as strategy C64 - Generational differences / Impact of age C340 - "Support from a voice department"			
P 58	Rest, lots of rest.	C104 - Vocal Rest			
P 59			Yes	Use in ears for proper monitoring on stage. Avoid signing over saw throats. Sometimes cancel gigs to preserve ability to perform upcoming gigs if feeling vocally unwell rather than singing over it. I have to bear in mind the commercial realities, preserving voice for highest paid gigs if vocal health becomes an issue.	C192 - Financial consequences and pressures of vocal fatigue for musicians C141 - Anticipation prevention prior to upcoming engagements C325 - Illness and its relationship with vocal fatigue
P 60			Yes	Warm ups and hydration	C2 - Importance of a (self developed) warm up C86 - Hydration as strategy

Participant ID	If you have experienced working with a singer/performer who was experiencing vocal fatigue, have you noted any emotional responses? If so, please select any that apply.	When you experience vocal fatigue, which of the following emotional responses, if any, do you experience? Select all that apply.	How comfortable do you feel discussing vocal fatigue with singers/performers?	If you would like to expand on your answer, please do so below.	QUALITATIVE CODING	How comfortable do you feel discussing vocal fatigue with professional collaborators, such as musical directors, music producers, choreographers or others in similar roles?
P 1	Embarrassment;Frustration;Reduced confidence		Comfortable	-		
P 2	Stress;Embarrassment;Low mood;Frustration;Reduced confidence		Neither comfortable or uncomfortable	-		
P 3		Stress;Low mood;Frustration;Reduced confidence				Comfortable
P 4		Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence				Very comfortable
P 5		Embarrassment;Frustration;Reduced confidence				Comfortable
P 6		Frustration				Comfortable
P 7		Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence				Neither comfortable or uncomfortable
P 8		Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence				Very comfortable
P 9		Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence				Comfortable
P 10		Stress;Low mood;Frustration;Reduced confidence				Comfortable
P 11		Low mood;Frustration				Very comfortable
P 12		Occasional stress that I can't perform as well/hit notes I otherwise would be able to				Very comfortable
P 13		Frustration				Uncomfortable
P 14		Anxiety;Frustration				Very comfortable

Participant ID	If you have experienced working with a singer/performer who was experiencing vocal fatigue, have you noted any emotional responses? If so, please select any that apply.	When you experience vocal fatigue, which of the following emotional responses, if any, do you experience? Select all that apply.	How comfortable do you feel discussing vocal fatigue with singers/performers?	If you would like to expand on your answer, please do so below.	QUALITATIVE CODING	How comfortable do you feel discussing vocal fatigue with professional collaborators, such as musical directors, music producers, choreographers or others in similar roles?
P 15		Frustration				Very comfortable
P 16		Anxiety;Stress;Low mood;Frustration;Reduced confidence				Very comfortable
P 17		Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence				Comfortable
P 18	Anxiety;Embarrassment;Frustration;Reduced confidence		Comfortable			
P 19		Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence;No emotional impact;Worthlessness				Uncomfortable
P 20		Anxiety;Stress;Embarrassment;Frustration				Neither comfortable or uncomfortable
P 21	Stress;Embarrassment;Frustration		Comfortable	I'm comfortable discussing it but I wouldn't go so far as to advise anything beyond rest. I would always direct them to a technical specialist	C337 - Understanding own knowledge and directing voice users to qualified professionals	
P 22		Stress;Low mood;Reduced confidence				Comfortable
P 23		Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence				Very comfortable
P 24	No emotional impact		Neither comfortable or uncomfortable	-		
P 25	Anxiety;Embarrassment;Frustration;Reduced confidence		Comfortable	-		
P 26		Anxiety;Stress;Embarrassment;Frustration;Reduced confidence				Very comfortable
P 27		Frustration;Reduced confidence				Neither comfortable or uncomfortable
P 28		Stress;Frustration				Uncomfortable
P 29		Stress;Frustration;Reduced confidence				Neither comfortable or uncomfortable

Participant ID	If you have experienced working with a singer/performer who was experiencing vocal fatigue, have you noted any emotional responses? If so, please select any that apply.	When you experience vocal fatigue, which of the following emotional responses, if any, do you experience? Select all that apply.	How comfortable do you feel discussing vocal fatigue with singers/performers?	If you would like to expand on your answer, please do so below.	QUALITATIVE CODING	How comfortable do you feel discussing vocal fatigue with professional collaborators, such as musical directors, music producers, choreographers or others in similar roles?
P 30	Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence		Very comfortable	I try to avoid it as much as possible, by easing into the session, with some light run throughs before we start. Make sure they are well hydrated and relaxed. But if vocal strain does occur, explain how it's completely normal and happens to everyone.	C84 - Normalising vocal health the same way as physical health C166 - Supportive workplace culture for vocal health	
P 31		Stress;Embarrassment;Reduced confidence				Uncomfortable
P 32		Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence				Neither comfortable or uncomfortable
P 33		Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence				Uncomfortable
P 34		Anxiety;Stress;Low mood;Frustration;Reduced confidence				Very comfortable
P 35		Anxiety;Frustration;Reduced confidence				Uncomfortable
P 36	Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence		Very comfortable	I think that singers and especially young singers feel like they can't show any kink in the chain and so must be at top performance mode at all times. When working with a company I do regular checkups and continually encourage people to discuss how they're feeling. Nobody can feel 100% all the time and open communication is key. If someone is feeling fatigued and I know about it I can preempt by asking sound to give them additional support etc to try and help them. At the very least keep them at ease by reducing pressure.	C169 - Proactive discussions around vocal health C166 - Supportive workplace culture for vocal health	
P 37		Anxiety;Stress;Frustration;Reduced confidence				Very comfortable
P 38	Anxiety;Stress;Frustration;Reduced confidence		Neither comfortable or uncomfortable	-		
P 39		Anxiety;Stress;Frustration;Reduced confidence				Very comfortable
P 40		Stress;Embarrassment;Low mood;Frustration				Comfortable

Participant ID	If you have experienced working with a singer/performer who was experiencing vocal fatigue, have you noted any emotional responses? If so, please select any that apply.	When you experience vocal fatigue, which of the following emotional responses, if any, do you experience? Select all that apply.	How comfortable do you feel discussing vocal fatigue with singers/performers?	If you would like to expand on your answer, please do so below.	QUALITATIVE CODING	How comfortable do you feel discussing vocal fatigue with professional collaborators, such as musical directors, music producers, choreographers or others in similar roles?
P 41		Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence				Comfortable
P 42		Anxiety;Low mood;Reduced confidence				Comfortable
P 43		Stress;Embarrassment;Frustration;Reduced confidence				Very comfortable
P 44	Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence		Very comfortable	Very comfortable within the remit outlined above. I'm not a professional ENT but am happy to have conversations and make suggestions.	C169 - Proactive discussions around vocal health and fatigue	
P 45	Anxiety;Stress;Embarrassment;Frustration;Reduced confidence		Very comfortable	I work closely with all my clients and have a built a strong relationship with them so things like this are easy to discuss	C199 - Communication influenced by relationship in the workplace	
P 46		Anxiety;Stress;Frustration				Neither comfortable or uncomfortable
P 47	Embarrassment;Frustration		Very comfortable	-		
P 48	Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence		Very comfortable	I voice noted an artist in Australia last week who had sent a performance with excessive distortion at points and a tonality that didn't feel like her typically and suggested a couple of days rest before re-doing the takes. She agreed and as result delivered a new, much more energetic and cleaner performance. I've similarly called time on sessions multiple times because the vocalist is simply wearing out their voice, with the understanding we'll revisit or book another session at another time. It's principally about communicating that you understand and believe they have a better performance in them, and that rest is the most effective way to get there.	C199 - Communication influenced by relationship in the workplace	
P 49		Anxiety;Stress;Frustration				Very comfortable
P 50	Anxiety;Stress;Embarrassment;Frustration;Reduced confidence		Comfortable	-		
P 51	Anxiety;Stress;Embarrassment;Frustration;Reduced confidence		Comfortable	Every singer is different. Some like to sing songs all the way through, while some like to zone in on smaller areas. What they like to do is not always the best way for them. I find varying these techniques can help to see the broader picture sometimes.	C289 - Every voice is different	
P 52	Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence		Very comfortable	-		

Participant ID	If you have experienced working with a singer/performer who was experiencing vocal fatigue, have you noted any emotional responses? If so, please select any that apply.	When you experience vocal fatigue, which of the following emotional responses, if any, do you experience? Select all that apply.	How comfortable do you feel discussing vocal fatigue with singers/performers?	If you would like to expand on your answer, please do so below.	QUALITATIVE CODING	How comfortable do you feel discussing vocal fatigue with professional collaborators, such as musical directors, music producers, choreographers or others in similar roles?
P 53	Anxiety;Stress;Embarrassment;Low mood;Frustration;Reduced confidence		Very comfortable	I try to encourage and facilitate open conversations about how the performer is feeling and what they think they need, and how we can accommodate. If that involves bringing in other departments (especially sound) I feel that that is very important. Vocal health shouldn't be a source of shame.	C169 - Proactive discussions around vocal health and fatigue C341 - "Vocal health shouldn't be a source of shame."	
P 54	Anxiety;Embarrassment;Low mood;Frustration		Comfortable			
P 55	Anxiety;Embarrassment;Frustration		Neither comfortable or uncomfortable	-		
P 56		Anxiety;Embarrassment;Low mood;Frustration				Comfortable
P 57	Anxiety;Embarrassment		Comfortable	-		
P 58	Stress;Embarrassment;Frustration		Very comfortable	I think it's super important that producers, composers and musicians are educated about vocal fatigue and able to work with singers to avoid causes	C207 - Education for music producers and musicians can enable more productive sessions	
P 59		Anxiety;Frustration;Reduced confidence				Uncomfortable
P 60		Anxiety;Stress;Reduced confidence				Very comfortable

Participant ID	If you would like to expand on your answer, please do so below.	QUALITATIVE CODING	Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below.	QUALITATIVE CODING
P 1			How to support singers experiencing it in session	C349 - Desire to increase knowledge surrounding how to support those experiencing vocal fatigue within a session
P 2			How to spot it early and advice on how to prevent it.	C349 - Desire to increase knowledge surrounding how to support those experiencing vocal fatigue within a session
P 3	As a person who experiences vocal fatigue fairly rarely, I believe that people experience vocal fatigue for a variety of reasons and so a professional collaborator should be able to understand an occurrence of it and the reasons why. However, there are some who would be unreasonable.	C274 - Lack of understanding around vocal fatigue from professional collaborators		
P 4	I feel it is very important to be open and honest about vocal fatigue, especially with creatives as it instantly eliminates the feelings of having to be perfect and robot-like and instead remembering we are just like athletes who get injured and sore.	C221 - Voice compared to an athletic instrument/ voice users compared to athletes		
P 5	my singing teacher recognises it and tells me when to take breaks etc	C346 - Comfortable discussing with collaborators		
P 6	-			
P 7	-			
P 8	-			
P 9	I feel comfortable in expressing myself, but it usually means I have to fight for what I want or need and sometimes being put in a position of having to work through even when I know I shouldn't to not damage my voice further	C68 - Pressure to push through C274 - Lack of understanding around vocal fatigue from professional collaborators		
P 10	-			
P 11	-			
P 12	Happy to discuss	C346 - Comfortable discussing with collaborators		
P 13	Awkward as I feel MD's might deem it as a lack of technique or bad training	C103 - Fear of judgement when seeking support		
P 14	-			

Participant ID	If you would like to expand on your answer, please do so below.	QUALITATIVE CODING	Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below.	QUALITATIVE CODING
P 15	-			
P 16	-			
P 17	I have no problem telling a musical director that I am feeling tired or overworked. I say that now with 8 years of working experience but I wouldn't have had that confidence when I left drama school.	C346 - Comfortable discussing with collaborators C158 - Older/more experienced performers are better at advocating for themselves		
P 18			I'm always looking for more warm ups and cool down exercises to make sure voices aren't fatigued	C218 - Importance of cool downs C2 - Importance of a (self developed) warm up
P 19	No one ever wants to be seen as unreliable - this is immediately how a singer feels when they're fatigued. I can't stress enough that I do firmly believe if a singer is experiencing fatigue on a regular basis, there is likely something fundamentally wrong with the technical aspect of their singing and they absolutely have a duty to figure out how to improve that. One good example to note is MDs - they can sometimes be detrimental as they often don't know how to use the correct language to tell a singer how they'd like something done, but again, the singer's job is to interpret instruction correctly and translate it into a safe method of production of the sound or quality, rather than just trying to impress the MD in the moment.	C97 - Potential judgement due to vocal fatigue C176 - importance of sensitive communication around the voice		
P 20	-			
P 21			Early signs, and personally I would benefit from understanding what's going on biologically	C350 - Greater knowledge around how to detect vocal fatigue
P 22	-			
P 23	-			
P 24			how to avoid or notice if a singer has vocal fatigue	C350 - Greater knowledge around how to detect vocal fatigue
P 25			Helping a singer manage it during a session when it occurs. Usually an issue when there is only a certain time they can record what they need to and they get frustrated when can't record, perhaps delaying delivery etc.	C349 - Desire to increase knowledge surrounding how to support those experiencing vocal fatigue within a session
P 26	I don't see the point in not discussing this upfront and then it becoming a problem, prevention is better than the cure. If I'm having an off day, I think it's important to let anyone looking after your sound that this could potentially be an issue if things aren't right.	C347 - Importance of honesty surrounding vocal fatigue		
P 27	I would feel uncomfortable at the start of the contract whilst getting to know the team but once I am comfortable I would happily discuss/ ask for advice	C199 - Communication influenced by relationship in the workplace		
P 28	I sometimes feel guilty for not being fully on voice. I don't want to affect others in the process or in the work.	C70 - Feeling of guilt towards collaborators/peers/co-workers surrounding vocal fatigue		
P 29	Sometimes there's a fear of becoming across difficult to work with when u speak up. And they kind encourage to push through it.	C68 - Pressure to push through C288 - Fear of being viewed as difficult		

Participant ID	If you would like to expand on your answer, please do so below.	QUALITATIVE CODING	Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below.	QUALITATIVE CODING
P 30			I would like to understand more the mechanics of how the muscle contracts and further techniques on how to combat it	C308 - Desire to learn more around vocal fatigue (in particular the mechanisms underpinning the condition)
P 31	Within the industry, people know how to take care of their voices, especially among musical directors etc, but when vocal fatigue occurs, I feel embarrassed as if everyone knows that my voice is not strong and isn't being looked after correctly, even when I'm trying to.	C91 - Embarrassment around vocal fatigue		
P 32	I feel like I know what's going on in my voice personally, but would struggle to articulate.	C348 - Unconfident with communication surrounding vocal fatigue		
P 33	I feel that sometimes singers can be labeled 'divas' for complaining about their voices, not always, but past experiences make me weary to mention it straight away.	C288 - Fear of being viewed as difficult		
P 34	-			
P 35	It sometimes feels like the creatives don't understand that a break would be beneficial for us as performers. Instead we are told to keep pushing as our training time is so valuable	C68 - Pressure to push through		
P 36			Early signs. It always feels a little late!	C350 - Greater knowledge around how to detect vocal fatigue early
P 37	I think being transparent about your vocal health and any current issues is sooo important. If you don't express these, the expectation for you to sing normally and therefore risk damage to your vocals is increased - it's not worth it in the long run.	C347 - Importance of honesty surrounding vocal fatigue		
P 38			I would like to learn more about vocal fatigue particularly as it affects those in full-time theatre training.	C308 - Desire to learn more around vocal fatigue
P 39	-			
P 40	-			

Participant ID	If you would like to expand on your answer, please do so below.	QUALITATIVE CODING	Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below.	QUALITATIVE CODING
P 41	I think I feel comfortable because I'm at a stage in my career where I feel able to speak for myself, my frustration comes with watching younger performers who fear getting ridiculed, or older performers who have the mentality the show must go on. There is of course always the concern that employers will see you as not up to it or incapable if you get vocal fatigue.	C64 - Generational differences / Impact of age C63 - "Show must go on" mentality		
P 42	-			
P 43	-			
P 44			It's tricky one because yes, I would always want to know more, but I also am conscious that although it's heavily linked to my job, it isn't my job. More awareness and understanding would be amazing to help ad-hoc / day to day cases, but I wouldn't have the time to become an "expert" and would always defer to them for more serious cases.	C351 - "although it's heavily linked to my job, it isn't my job" C337 - Understanding own knowledge and directing voice users to qualified professionals
P 45			How to manage/counter it	C349 - Desire to increase knowledge surrounding how to support those experiencing vocal fatigue within a session
P 46	I have had mixed responses from producers especially...if say I had the big number in a show I'd always want to run it at sound check. If it sounded terrible or was a struggle I'd warn them and see if someone else could step in but it rarely happened.	C274 - Lack of understanding around vocal fatigue from professional collaborators		
P 47			Not really. I think most professional singers that may struggle with it would eventually have lessons to help conquer it.	C351 - "although it's heavily linked to my job, it isn't my job"
P 48			Further strategies that are scientifically backed, or at least researched on a technical level. I feel like things like vocal zone are relied upon a lot and honey in certain teas, but I don't know if I've personally seen them make a huge difference. I am a proponent of less dairy and room temperature water. Is that even coming from a place of truth/research? I've not explored it, (maybe they exist?) but blind AB tests of a similar performance under those conditions would intrigue me and help me point performers in a better way!	C59 - Commercially promoted vocal remedies C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?)
P 49	I feel like vocal fatigue is a common problem for performers (specifically principals) who have to carry 8 shows a week which can be incredibly tiring on the body and voice. So opening up these discussions is important to help and support the performers throughout the process and in the future.	C347 - Importance of honesty surrounding vocal fatigue		
P 50			Further exploration and information on rehabilitation would always be useful	C349 - Desire to increase knowledge surrounding how to support those experiencing vocal fatigue within a session/ workplace
P 51			I think so much is in the mind, that the ability to make an artist feel more comfortable and at ease is very important. Many vocalists feel isolated on the other side of the glass. As a music producer I think we have to learn more psychology, and how that can help release tension.	C326 - Vocal fatigue linked to mental health
P 52			Some accents can have a rough effect on the singing voice. Trying to get someone to change life habits is very difficult	C352 - Connection of speaking and accent to vocal fatigue

Participant ID	If you would like to expand on your answer, please do so below.	QUALITATIVE CODING	Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below.	QUALITATIVE CODING
P 53			Exercises or strategies to help prevent and alleviate fatigue	C349 - Desire to increase knowledge surrounding how to support those experiencing vocal fatigue within a session/ workplace
P 54			The physiology behind/around it.	C237 - Interest around the different underlying mechanisms
P 55			How to treat safely	C349 - Desire to increase knowledge surrounding how to support those experiencing vocal fatigue within a session/ workplace
P 56	-			
P 57			Always learning!	
P 58			How to avoid it. How to identify symptoms early on.	C350 - Greater knowledge around how to detect vocal fatigue early
P 59	Can be difficult to discuss with clients.	C348 - Unconfident with communication surrounding vocal fatigue		
P 60	-			

Participant ID	Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below.	QUALITATIVE CODING	Note: Questionnaire wording condensed for formatting purposes. Please indicate if you would be willing to participate in any of the following.
P 1			Neither
P 2			Individual Interview (20 minutes)
P 3	More ways to combat it/recover/navigate around it in times of need	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 4	Yes, I would love to get more knowledge in every aspect of vocal fatigue in order to create my own specific ways to battle vocal fatigue.	C354 - Desire for greater knowledge surrounding all aspects of vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 5	yes leaning more about both prevention and treatment	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 6	unsure		Neither
P 7	How to quickly reduce vocal fatigue	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 8	Just more precautions and things I can do to catch it early.	C350 - Greater knowledge around how to detect vocal fatigue early	Individual Interview (20 minutes)
P 9	Yes, how to more consistently manage my voice and also to learn more about what's needed for the specific job I'm in, be that a musical play or voice over work or musician work	C353 - More strategies to help professional voice users prevent and manage vocal fatigue C33 - Different demands of material	Small focus group (45 minutes); Individual Interview (20 minutes)
P 10	Not sure. It hasn't been frequent enough to negatively impact my career to a point where I've felt I needed to learn more.		Individual Interview (20 minutes)
P 11	How to prevent! And any useful tips for recovery!	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 12	Yes, from doing sessions with [vocal coach] and learning more about physiology and the way the voice works, I have felt more in tune with my voice. Learning more about the physiology of the voice has benefitted my singing	C258 - Appreciation of scientific depth	Small focus group (45 minutes)
P 13	how to recover quickly	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 14	Keeping contact when vocal folds have swollen		Neither

Participant ID	Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below.	QUALITATIVE CODING	Note: Questionnaire wording condensed for formatting purposes. Please indicate if you would be willing to participate in any of the following.
P 15	-		Neither
P 16	Ways in which to move on and grow stronger/ breaking the pattern of habits	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Individual Interview (20 minutes)
P 17	No, but I think musical directors/directors/producers could benefit from learning more about it.	C172 - Recommendations for Musical Directors to engage in extra knowledge development	Individual Interview (20 minutes)
P 18			Small focus group (45 minutes)
P 19	Perhaps which flags to look out for for different voices? Are there specific notes/vowels which generally give the majority of male voices trouble? Is there a trend? If so, why is this and what can be good approaches to alleviate?	C355 - Interest in how to identify fatigue in different voice types	Individual Interview (20 minutes)
P 20	Strategies on how to avoid it.	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Individual Interview (20 minutes)
P 21			Small focus group (45 minutes)
P 22	more strategies of prevention and coping would be super helpful!	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 23	More preventative measures	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 24			Neither
P 25			Individual Interview (20 minutes)
P 26	Yes, I definitely benefit from better understanding of what causes it and what's going on physically when it occurs.	C308 - Desire to learn more around vocal fatigue and its' causes	Small focus group (45 minutes); Individual Interview (20 minutes)
P 27	Fatigue prevention	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Individual Interview (20 minutes)
P 28	How to cool down your voice properly	C218 - Importance of cool downs	Small focus group (45 minutes)
P 29	Building vocal stamina healthily and maintaining it without causing vocal damage	C44 - Uncertainty about safe vocal technique	Small focus group (45 minutes); Individual Interview (20 minutes)

Participant ID	Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below.	QUALITATIVE CODING	Note: Questionnaire wording condensed for formatting purposes. Please indicate if you would be willing to participate in any of the following.
P 30			Small focus group (45 minutes); Individual Interview (20 minutes)
P 31	The solutions of it and what is happening the vocal area when fatigue occurs.	C353 - More strategies to help professional voice users prevent and manage vocal fatigue C308 - Desire to learn more around vocal fatigue and its' causes	Individual Interview (20 minutes)
P 32	More ways of prevention. Where it actually affects you.	C353 - More strategies to help professional voice users prevent and manage vocal fatigue C308 - Desire to learn more around vocal fatigue and its' causes	Neither
P 33	yes!! i would love to learn more about it, how to avoid and how to manage it.	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 34	Prevention especially in a long running situation like shows	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 35	How to manage it in an industry setting that is healthy but doesn't compromise your reputation in the industry	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 36			Individual Interview (20 minutes)
P 37	More preventative methods, and how to sing and talk when you are experience vocal fatigue but it's still necessary to do so	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 38			Individual Interview (20 minutes)
P 39	Probably learning even more about scientifically what happens to the vocal folds, and the ideal ways to prevent/recover from fatigue.	C237 - Interest around the different underlying mechanisms	Individual Interview (20 minutes)
P 40	Any further information is always useful and informative!		Small focus group (45 minutes); Individual Interview (20 minutes)

Participant ID	Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below.	QUALITATIVE CODING	Note: Questionnaire wording condensed for formatting purposes. Please indicate if you would be willing to participate in any of the following.
P 41	I think about early stages of catching it, prevention, and managing through it	C353 - More strategies to help professional voice users prevent and manage vocal fatigue C350 - Greater knowledge around how to detect vocal fatigue early	Small focus group (45 minutes); Individual Interview (20 minutes)
P 42	Is voice rest better for fatigue? Or is it better to do gentle vocal exercises?	C266 - Voice rest given as a common strategy but not always relevant	Small focus group (45 minutes); Individual Interview (20 minutes)
P 43	Currently undergoing speech therapy so very experienced and interested in info re vocal fatigue and vocal health I. General	C354 - Desire for greater knowledge surrounding all aspects of vocal fatigue	Small focus group (45 minutes); Individual Interview (20 minutes)
P 44			Neither
P 45			Neither
P 46	Making a heavy load of gigs more manageable	C8 - High vocal workload	Small focus group (45 minutes); Individual Interview (20 minutes)
P 47			Neither
P 48			Individual Interview (20 minutes)
P 49	Why does it effect people differently if everyone is looking after their voices in the same ways?	C355 - Individual experiences of vocal fatigue dependant on voice type	Small focus group (45 minutes); Individual Interview (20 minutes)
P 50			Neither
P 51			Individual Interview (20 minutes)
P 52			Individual Interview (20 minutes)

Participant ID	Are there any aspects of vocal fatigue that you would benefit from learning more about? If so, please detail below.	QUALITATIVE CODING	Note: Questionnaire wording condensed for formatting purposes. Please indicate if you would be willing to participate in any of the following.
P 53			Neither
P 54			Neither
P 55			Neither
P 56	How to work back up to full health	C353 - More strategies to help professional voice users prevent and manage vocal fatigue	Neither
P 57			Neither
P 58			Small focus group (45 minutes); Individual Interview (20 minutes)
P 59	It was covered well on Estil. I feel I can sing as much as I want if I do it in healthy way and don't have an infection. Issues come if I am ill or don't get enough sleep or push without proper monitoring.		Small focus group (45 minutes); Individual Interview (20 minutes)
P 60	What to do when I lose my voice completely	C320 - Vocal fatigue presenting as lost voice	Neither

Appendix K - Category to Theme Development

CATEGORIES/THEMES					
Second Cycle Category	Participant/ Roles	Codes Included	Selected Quotes	Theme	Sub themes
Lifestyle, pressures and occupational demands of professional voice users	9 x MTP 9 x M 7 x MP 5 x MD 5 x S/G	- C1 - Demanding schedule - C4 - Demanding daily schedule - C10 - Demanding schedule outside of work - C6 - Seasonal Demands - C7 - Audition Pressures - C9 - Multiple Professional Roles - C18 - Repetitive voice use - C175 - Voice as identity - C223 - Industries make vocal fatigue almost inevitable - C130 - Pressure of maintaining consistent vocal standards - C165 - The need for validation and wanting to impress - C45 - Pressure of timescales - C71 - Spread of illness within a company - C162 - Financial consequences and pressures of vocal fatigue for musicians - C33 - Different demands of material - C42 - Lack of experience - C123 - Vocal fatigue is a big part of performing - C191 - Multiple takes required due to vocal fatigue - C193 - Impact of long recording sessions - C211 - Perceived career consequences of vocal fatigue - C230 - Difference of demand between musical theatre and music - C252 - Difference in vocal management between genders - C253 - Different vocal expectation of genders in the music industry - C282 - Forfeiting gigs due to vocal fatigue - C275 - Lifestyle changes to manage theatre demand and vocal fatigue - C200 - Vocal fatigue affecting ability to perform and lifestyle - C309 - Musicians are reluctant to stop - C318 - Difference between musical theatre and musician approaches	"a lot of them will be playing... doing their job, then playing shows in the nighttime or at the weekends, and then trying to track a vocal to keep the productions going" - P48(NT-MP) "obviously 8 shows a week is quite tough." - P9(NT-MTP) "It's like a daily occurrence, within like three years having classes, like every single day, singing for like multiple hours a day" - P49(NT-S/G) "I'm a multi-professional, I sing, but also I work full-time in marketing as well, so I'm regularly using my voice, like, speaking voice, at least 6-7 hours a day, whether it's, like, through events or meetings and stuff, then when I'm not doing that, I also sing, in the evening. And also regularly practicing, whether it's in the car, like, any moment I can get" - P8(NT-M) "In a day's work, I'd be teaching probably about six classes, hour long" - P27(NT-MTP) "I'm a waitress, so I speak for more than nine hours a day, every day, on top of the extra things. It's a lot of talking" - P49(NT-S/G) "I think it's all kind of wrapped up with when you do have a big long run of gigs, you know, like, we're into wedding season now, the anxiety is, like, sky high, because you're like, oh gosh, I can't let XYZ down for the next couple of weeks." - P46(D-M) "I'm a multi-professional, I sing, but also I work full-time in marketing as well" - P8(NT-M) "The whole day, and then recording at night, and doing, like, maybe 15 takes of the same songs, trying to make it perfect" - P49(NT-S/G) "I see it all the time. Particularly after a writing session, we'll finish the day recording, and we've been writing and singing all day long, and then we record at the end, so there's a lot of vocal fatigue at the end" - P58(FG1-MP) "so it had to be proper rock, belt, and full, and, you know, doing that take, God knows how many times" - P12(D-M) "It's their identity, it is who they are." - P36(NT-MD) "It's part of my identity" - P8(NT-M) "Their singing ability is very much wrapped up into their identity." - P21(FG1-MD) "the musical theatre world do 8 shows a week, I would say that's not a preventative measure. That is a way to, kind of, make money, and then cause an environment which is always going to be consequential" - P8(NT-M) "There is also an argument to be made for fatigue sometimes being an almost unavoidable result of a voice dealing with "exceptionally" demanding material on a repeated day-to-day basis" - P19(Q-M) "I feel like the biggest... I think that's the biggest fear for all performers is, like, your reputation" - P49(NT-S/G) "You want to perform for your optimum level, you know" - P20(NT-M) "I'm still nervous going into a new venue that I've never played before, you know." - P20(NT-M) "There is that kind of anxiety there that you're like, I'm not, it's not going to be my best kind of performance." - P12(D-M) "they're trying to make a good first impression, because it's the first time that they're working, and it's the first time that they're seeing these people, so they're trying to sing out." - P36(NT-MD) "working your way up to working with better and bigger producers. You don't want to be the guy who turns up. I think the first session is definitely always worse. You don't want to be like cracking on notes, you don't want to. Not not singing in a way that you know would make yourself proud in the room so yeah." - P8(NT-M) "you wouldn't get help that in a rehearsal room because obviously it's got to be quick. You've got to get through all the material. You've got to get going and you've got to get, get it right. So it could be that you're doing it really unsafely." - P27(NT-MTP) "like having like a day's notice to learn a song" - P49(NT-S/G) "Look, you're under savage time pressure. Everyone's new, you've put that into your schedule. Because if everybody's new and this is the first time, it's in your schedule to talk about it. It's in your, guys, and we have to have 10 minutes on the top of this to talk about in ear's because everybody's first time in them." - P50(NT-MD) "There are times where we sort of find out when they're here, like in the studio, and then it's almost like a little bit too late. You're sort of a little bit late, well, I don't know what to do now because we've got this project to deliver at like three o'clock and can't really sort of say to the client, sorry, the vocalist needs to take a week and a half off. Like our schedules are nuts." - P56(FG1-MP) "I do feel like sometimes if an illness comes into the company, it can spread like wildfire." - P27(NT-MTP) "They might have traveled and then they've obviously paid to be here and then they're not getting the results that they're hoped for." - P2(NT-MP) "when there's, like, sessions that are being paid for, again, that's, like, a massive stress, because you're like, I have to get this taped, it has to be right" - P8(NT-M) "It's so intrinsically tied to an income, which are professional vocalists, that it is a case of, I need to do this, and it's not like, just like, as a guitar player, I might tape up a finger, or, you know, whatever it is to get through a show, wear a shoulder brace, whatever it happens to be, if they've injured themselves on tour or whatever. Vocalists pretty much... I mean, the people that know, and have done it before, and have had been through that, they will prepare a lot better, and they will keep their voice fit, and trained, and healthy, and all those sort of things. The majority do not do that. The majority are focusing on next show, next song, next song, right, let's keep doing that stuff." - P48(NT-MP) "no vocalist I've ever worked with has ever liked to turn down a paid gig, so it's like, you know, they don't ever want to turn down those projects. They'll come in if their voice is at top notch, or their voice is struggling, and so we kind of see it on a sort of fairly semi-regular basis." - P58(FG1-MP) "It like causes quite an emotional reaction as well because again like, you know, they, they, they don't want to turn down a paid gig and, and, and like already sort of every... every creative in music that I know is terrified about money, has never not been terrified about money, so it's, like, really kind of... you know, if I... if I know them quite well, it really brings up, like, all of that stuff about... can we do next week, or can we do the week after? You know, all of those questions about whether, like, how flexible the project is, maybe they'll be better tomorrow. Like, it's sort of, it really quickly sort of snowballs into this sort of emotive space." - P58(FG1-MP) "that's been huge for me in the past, where it's like, unfortunately, even if I'm tired, I still have to go and do the gig to get paid." - P12(D-M) "Sometimes cancel gigs to preserve ability to perform upcoming gigs if feeling vocally unwell rather than singing over it. I have to bear in mind the commercial realities, preserving voice for highest paid gigs if vocal health becomes an issue." - P58(Q-M) "People who write songs and a lot of people who put on shows on these things and they create music that can never be sung consistently that many times" - P8(NT-M) "Like, now when I'm doing a play, for example, I'm being... I'm allowing myself way more But I know I'm going into something singing soon, so I'm also slowly changing my habits. Again" - P9(NT-MTP) "It's around a bit, I'd say. Like, also in, in, especially when I'm doing stage work, because you are doing so many shows a week, so I feel like, some type of vocal fatigue is happening to me on a weekly basis, and it's something I'm managing daily." - P9(NT-MTP) Especially if they've traveled far, they might book, like, a really long session and try to do loads in one day, and then towards the end of it, like, they're not getting the best version of themselves" - P2(NT-MP) "Especially in the music game as well, like, opportunities can be around the corner. So, like, if you're suffering with, like, severe vocal fatigue. That could be life changing" - P8(NT-M) "I think there's also a lot more restriction in musical theatre, and I understand why that's... that is what it is, especially with the amount of, like, ensemble work in there, and being, like, clean lines, and obviously audiences expect that, but I think because of the restrictions. Instead of, kind of, maybe shaping material around them, it's always like, no, you have to sing the highest note, you have to sing exactly this technique, you know?" - P9(NT-M) "I've experienced, generally, female vocalists are much more acutely aware of their technical, facility, and I also feel like they are much more aware of needing to prepare a little bit better for that kind of a thing, and warming up. I also find that hampers their emotional performance, but that's a different thing, and they focus too much on the technical. Guys, on the other hand, will go, oh, it just sounds great, but that might be that I smoke 15 cigarettes." - P48(NT-MP) "Male vocalists appreciate a manly growl, a bit of grit, a bit of distortion, actually the vocal not being quite technically perfect is often something that they're aiming for and have heard on records over the years. Female vocalists are often focusing on more of that pop sound, which is actually unattainable really without a load of technology and auto tune and, and heavy EQ and this sort of stuff. But they're expecting to hear that back when they, when they perform. And so they're aiming for this thing that actually is not really a pure voice and that's not a human voice. So their aspiration for that." - P48(NT-MP) "Started singing and couldn't hit a note so I ended up after 3 songs I gave up and went home which I've never done before and I've been doing this for what over 3 years solidly so." - P22(NT-M) "but my lifestyle changed when I did them, because I had to kind of, like, after work, go on... on vocal rest and go home, and, like, and... and hydrate and steam and... and do recovery time. And if I... if I had friends or family watching the show, and maybe I went to a pub after and it's not even really about drinking I think, but being in a loud environment and talking to people after the show. I would then feel a massive change the next day, you know, like..." - P9(NT-MTP) "Like I couldn't do my job properly. I couldn't work as an actor." - P41(FG2-MTP) "but most, like, giggling musicians that I know never wanna take two weeks off." - P58(FG1-MP)	1. Vocal Fatigue Amidst the Pressures and Demands of Professional Voice Users	Sub Theme 1 Occupational demands & workload - C1 - Demanding schedule - C4 - Demanding daily - C10 - Demanding schedule outside of - C6 - Seasonal - C7 - Audition Pressures - C118 - Repetitive voice use - C223 - Industries make vocal fatigue almost inevitable - C45 - Pressure of timescales - C33 - Different demands of material - C42 - Lack of experience - C123 - Vocal fatigue is a big part of performing - C191 - Multiple takes required due to vocal fatigue - C193 - Impact of long recording sessions - C230 - Difference of demand between musical theatre and music - C253 - Different vocal expectation of genders in the music industry - C9 - Multiple Professional Roles - C26 - Performance anxiety - C20 - Fear of voice not functioning - C18 - Frustration with vocal limitations - C162 - Fear of discarding vocal fatigue - C318 - Difference between musical theatre and musician approaches - C8 - High vocal workload - C284 - Overuse of voice (most common) - C11 - "struggling over louder music" - C118 - Repetitive voice use - C133 - Constant voice use - C177 - Costumes impacting vocal performance and potentially fatigue - C328 - Attempting material out of the singers capabilities - C38 - Stylistic vocal demands Sub Theme 2 Financial pressures and professional expectations - C162 - Financial consequences and pressures of vocal fatigue for musicians - C175 - Voice as identity - C130 - Pressure of maintaining consistent vocal standards - C165 - The need for validation and wanting to impress - C211 - Perceived career consequences of vocal fatigue - C252 - Difference in vocal management between genders - C282 - Forfeiting gigs due to vocal fatigue - C9 - Multiple Professional Roles - C300 - Vocal fatigue affecting ability to perform and lifestyle - C309 - Musicians are reluctant to stop - C69 - Personal pressure - C20 - Fear of voice not functioning - C93 - Feel like fatigue is personal failure - C220 - Paranoia about getting vocal injury - C273 - Fear of vocal injury - C127 - Vocal fatigue causing stress (emotional impact) - C268 - Reluctance to cancel gigs Sub Theme 3 Lifestyle and external factors that influence vocal fatigue - C71 - Spread of illness within a company - C275 - Lifestyle changes to manage theatre demand and vocal fatigue - C300 - Vocal fatigue affecting ability to perform and lifestyle - C38 - Impact of audio feedback on stage - C36 - No in ears in musical theatre - C179 - Use of in ears within musical theatre - C189 - Insufficient training on in ear monitor use - C181 - Effect of poor in ear monitor advice on performance - C313 - Poor monitoring/poor effects vocal performance/fatigue - C314 - Benefit of in ears - C23 - Gull around non-work activities - C24 - Recreational habits & voice use - C11 - "struggling over louder music" - C178 - Environmental conditions contributing to vocal fatigue - C189 - Lack of vocal technique causing fatigue - C36 - Uncertainty around cause of vocal fatigue - C213 - Vocal fatigue not always from singing - C262 - Acid reflux - C312 - Excitement takes over - C327 - Dehydration causing vocal fatigue - C328 - Menstrual cycle and its relationship to vocal fatigue - C331 - Impact of a poor deal on vocal fatigue - C352 - Connection of speaking and accent to vocal fatigue - C170 - Seasonal effects on the voice - C319 - Lack of breath support leading to vocal fatigue - C32 - Too much vocal effort - C193 - Impact of long recording sessions - C247 - Impact of preparation before a session on vocal fatigue - C325 - Fitness and its relationship with vocal fatigue QUANTS DATA - Workload hours - Experience of the condition

Second Cycle Category	Participants/ Roles	Codes Included	Selected Quotes	Theme	Sub themes
Perceived symptoms and experiences of vocal fatigue	MTP - 9 N - 9 S/G - 9 MP - 7 MD - 4	- C15 - Scratchy voice - C14 - Sensation of pain - C16 - Reduced vocal flexibility and range - C17 - Reduced vocal clarity - C88 - Sensation of tightness/aching around tongue and laryngeal region - C280 - Lack of vocal power - C119 - Lack of vocal control - C120 - Increase in effort required to produce sound - C126 - Lack of vocal fold closure - C88 - Vocal fatigue presenting as dehydration - C155 - Audible signs of vocal fatigue - C113 - Feeling tired - C154 - Voice not working at full potential - C228 - "Feeling vocally tired" - C229 - Vocal fatigue causing discomfort - C271 - Feeling of swollen vocal folds - C284 - Vocal fatigue manifesting as muscular tension - C320 - Vocal fatigue presenting as lost voice - C321 - Vocal fatigue causing a burning sensation - C283 - Less vocal stamina when vocally fatigued - C288 - Reluctance to cancel gigs - C291 - Vocal fatigue manifests in a variety of ways - C293 - Vocal fatigue not always audible	"Not quite feeling healthy today" - P27(NT-MTP) "I think probably with a singer, it's a bit more obvious, because, like, maybe they're just not, like, hitting the notes that they could usually hit" - P2(NT-MP) "I'm straining for higher notes" - P20(NT-M) "I don't know, just your voice, just feeling a bit deeper, a bit flatter" - P12(D-M) "tightness within my, like, my tongue and my mouth area" - P31(NT-S/G) "physical things which are the hardest is when, like, my voice feels like it's, like, my whole neck and throat feels really tight." - P8(NT-M) "An aching sensation and everything in like my jaw and then even like these bits on the sides is kind of all this like muscular system here." - P4(F/G2-S/G) "The physical feeling is almost like an 'ache' in my larynx". - P15(Q-MTP) "Vocal fatigue for me is the tightening of vocal muscles including in the through mouth and jaw, but occasionally in the chest and abdomen area." - P26(Q-M) "I feel like I don't have the same full control of the voice that I would have if it's not fatigued". - P9(NT-MTP) "It feels like I have to use a bit more effort to produce a sound that in a normal setting would be easy to produce." - P9(NT-MTP) "It's just the inability to use your voice as you normally would at your peak, so anything that it feels harder to do" - P4(F/G2-S/G) "I have found really interestingly with younger cast, one of the first signs is I can hear them pushing." - P38(NT-MD) "Vocal fry distortion that wasn't quite what we would probably, I'd typically hear from her." - P48(NT-MP) "a distinct 'scratchy-ness/breathiness" - P12(Q-M) "A tired voice that has become strained" - P30(Q-MP) "Vocal fatigue is to me where the voice has been used a lot and is not at its usual 100%. Making it harder to achieve certain aspects of the voice which usually happen much easier. Eg. Belting/mix/higher register work." - P7(Q-S/G) "maybe my vocal folds feel a bit swollen" - P9(NT-MTP) "obviously I can't feel my vocal folds, but, I think it's that, like, mental capacity of, like, being overly awareness, overly aware, I guess, and again, having to place things in a slightly different place" - P9(NT-MTP) "What to do when I lose my voice completely" - P60(Q-MTP) "If I'm suffering from fatigue, I can normally tell before the first note. But I hate to cancel anything." - P20(NT-M) "I thought, I can't cancel. This is Christmas gigs, people are expecting. And I just sung through it for the week, for the 3 gigs at that weekend, and then I tried not to talk for a week." - P20(NT-M)	2. The Multifaceted Experience and Perception of Vocal Fatigue Among Professional Voice Users and Their Collaborators	Sub Theme 1 <i>Defining and understanding vocal fatigue and its aetiology</i> - C13 - Feeling tired - C154 - Voice not working at full potential - C108 - Accurate definition of vocal fatigue required - C288 - Vocal fatigue described using other words - C187 - Recognition of vocal fatigue across different types of professional voice users - C214 - Multiple types of vocal fatigue - C215 - Vocal fatigue multifaceted condition - C216 - Scale of vocal fatigue - C226 - "vocal fatigue is an umbrella term" - C285 - Simplified perceptions of vocal fatigue - C289 - Every voice is different - C114 - Limited awareness of relationship between vocal technique and fatigue - C228 - "Feeling vocally tired" - C280 - Inconsistency between framing fatigue as a risk but also a tool? - C259 - Understand symptoms before definition - C308 - Desire to learn more around vocal fatigue and its causes - C322 - Muscles involved in voice production too tired to support sound - C350 - Greater knowledge required around how to detect vocal fatigue - C354 - Desire for greater knowledge surrounding all aspects of vocal fatigue - C355 - Individual experiences of vocal fatigue dependant on voice type - C323 - "vocal fatigue as a clinical diagnosis" - C234 - Importance of early identification of vocal fatigue - C270 - "Vocal fatigue is always present somehow" - C324 - "Performing during vocal fatigue can lead to injury" - C217 - Musicians sometimes enjoy the vocal quality produced as the onset of vocal fatigue (MISCONCEPTION) - C281 - Perception of using fatigue to enhance emotion (misconception) Sub Theme 2 <i>Recognition and interpretation of symptoms</i> - C15 - Scratchy voice - C14 - Sensation of pain - C16 - Reduced vocal flexibility and range - C17 - Reduced vocal clarity - C88 - Sensation of tightness/aching around tongue and laryngeal region - C290 - Lack of vocal power - C119 - Lack of vocal control - C120 - Increase in effort required to produce sound - C126 - Lack of vocal fold closure - C88 - Vocal fatigue presenting as dehydration - C155 - Audible signs of vocal fatigue - C228 - Vocal fatigue causing discomfort - C271 - Feeling of swollen vocal folds - C294 - Vocal fatigue manifesting as muscular tension - C320 - Vocal fatigue presenting as lost voice - C321 - Vocal fatigue causing a burning sensation - C283 - Less vocal stamina when vocally fatigued - C289 - Uncertainty when fatigue can become an injury - C291 - Vocal fatigue manifests in a variety of ways - C293 - Vocal fatigue not always audible - C289 - Uncertainty when fatigue can become an injury - C128 - Vocal sirens as a fatigue indicator - C295 - Different vocal qualities are impacted by vocal fatigue - C296 - Habitual vocal habitability to measure vocal fatigue Sub Theme 3 <i>Emotional and physical impact and experiences of vocal fatigue</i> - C19 - Emotional impact on voice - C28 - Feeling of anxiety due to fatigue - C91 - Embarrassment around vocal fatigue - C96 - Vocal fatigue causing embarrassment - C245 - Vocal fatigue significantly mental factor - C301 - Long term psychological effects of vocal fatigue - C326 - Vocal fatigue linked to mental health - C272 - Shame around vocal fatigue - C92 - Belief that performers shouldn't feel fatigue - C259 - Negative connotations towards vocal fatigue" - C163 - Catastrophising vocal fatigue symptoms - C203 - Sigma associated with singing lessons - C232 - Sigma surrounding vocal fatigue in recording scenarios - C341 - "Vocal health shouldn't be a source of shame." - C168 - effect of movement on singing - C246 - Vocal fatigue reflected in physically - C287 - Comparison of physical and mental health to vocal fatigue and dance fatigue - C29 - Effect of dance and singing simultaneously on vocal fatigue - C30 - Relationship between physical and vocal fatigue - C31 - Physical fatigue then leading to illness - C34 - Normalising vocal health the same way as physical health - C36 - Vocal fatigue causing physical tension - C106 - Difference between injury in dance and the voice - C188 - Comparison of vocal fatigue to muscular fatigue/fitness - C221 - Voice compared to an athletic instrument/ voice users compared to athletes - C339 -Physical exercise to support vocal fatigue - C194 - Sore throat OR vocal fatigue? QUANTS DATA - Familiarity with the concept (PVU) - Confidence in ability to recognise the condition (PVU) - Symptom chart - Emotional responses

Second Cycle Category	Participants/ Roles	Codes Included	Selected Quotes	Theme	Sub themes
Collaborators roles, responses and knowledge surrounding vocal fatigue	4 x MTP 3 x M 1 x SG 8 x MP 6 x MD	- C351 - "although it's heavily linked to my job, it isn't my job" - C351 - Role dependant responsibility - C307 - Self reflection on responsibility to freelancers - C160 - Warm ups as indicator to visually assess how performers are feeling - C169 - Proactive discussions around vocal health and fatigue - C171 - Variation in Musical director vocal health knowledge - C172 - Recommendations for Musical Directors to engage in extra knowledge development - C173 - Benefits of MD's watching sessions with vocal coaches - C174 - Instrumental training effects perception of singing - C189 - Limited discussion around vocal fatigue in music production contexts - C195 - Limited knowledge surrounding vocal fatigue - C207 - Education for music producers and musicians can enable more productive sessions - C251 - Difficulty between creating a safe space and approaching vocal fatigue - C255 - Perceived differences in vocal health knowledge across industry roles - C274 - Lack of understanding around vocal fatigue from professional collaborators - C299 - Lack of understanding from authoritative figures - C337 - Understanding own knowledge and directing voice users to qualified professionals - C349 - Desire to increase knowledge surrounding how to support those experiencing vocal fatigue within a session/workplace - C305 - Difficulty to manage fatigue in a group setting - C43 - Expectation of knowledge around vocal hygiene - C44 - Uncertainty about creating new sounds using safe vocal technique - C82 - Mic turned off to reduce vocal demand - C66 - formal sick leave support - C152 - Need for more guidance and support from Musical Directors - C153 - Musical director "first port of call" - C167 - Experiential understanding of performance demands - C166 - Supportive workplace culture for vocal health - C176 - Importance of sensitive communication around the voice - C162 - Difference of treatment between musicians and performers - C199 - Communication influenced by relationship in the workplace - C200 - Difficulty to discuss vocal fatigue without offending - C201 - Musicians seeking reassurance to stop session - C233 - "sometimes in the recording space, I think vocalists get left behind." - C244 - Producer role in shaping vocalist performances - C248 - Reliance on observational judgment to view fatigue - C249 - Reliance on feedback from artists/performer - C260 - Expectation from producers for performances to improve - C268 - Misunderstanding of post illness recovery time - C302 - Relationships between performers and sound department - C311 - Supportive booking agency - C332 - Lack of knowledge around voice management - C340 - "Support from a voice department"	In vivo "Not really, I think most professional singers that may struggle with it would eventually have lessons to help conquer it." - P47(Q-MP) (In response to developing knowledge) "I don't really feel like I've got that level of responsibility for them, because they're literally, like, we're paying them to do, like, an hour." - P58(FG1-MP) "They're coming in and doing whatever they... you know, if they want to go and smoke 20 cigarettes, you know, like, whatever, that's not my problem, really, like, it's up to them, but... or maybe that's where I'm going wrong, maybe it is, like, maybe there is sort of sense of a slight sense of challenge in terms of the relationship that we have with our freelancers." - P58(FG1-MP) "Yeah, it's tricky, though, it's tricky, because... because although... although some of the, like, you know, some of the people that we work with are, like, you know, in their early 20s, they're, like, just graduated from [university] or somewhere like that, or they're just... they're just starting out on their journey, and so actually, like, I look back at my, like, years ago, I won't say how many years ago, but when I first graduated, I knew nothing. Like, absolutely nothing, and actually, I was so influenced by everybody else around me asking me to do stuff, or asking me to do... do you know what I mean? So, I kind of actually sort of wonder whether... I will probably should be a little bit more on the lookout for just how they're doing. Generally, like, across... you know, it's like a text message, isn't it, really? It's like, how many gigs have you done recently, how are they going, how's your voice feeling, like, we've got this thing coming up, we'd love to get you involved. Do you know what I mean? It's a little bit more of a general conversation, rather than panic, panic, panic, can you come in for an hour? It's just like... so, yeah, it's really fascinating, it's actually a really interesting challenge that". - P58(FG1-MP) "Like vocal warmup when you're in the room with them is a really good indicator of who's feeling what where. Because you've got the people who clearly are like feeling in peak condition and they're like looking for the chats. You've got the people who like are going around with their rebulizers, the people who are going above and like really diligently doing the warmup. So you're like, okay, you mightn't feel great, but you're like, you're not on the steamer, you're okay." - P36(NT-MD) "so they don't know as much about singing, and that's totally fine. Like, there's a part of me that's like, it's an awful lot for an MD to know if they're also expected to all be vocal coaches." - P36(NT-MD) "if every MD at some point in their life even did like one of those like vocal first aid courses." - P36(NT-MD) "I learned so much by just sitting there and listening to people being taught how to sing." - P36(NT-MD) "At the end of the day, when I was taught the piano, I was sat down, and you pressed that button, and it made that noise. One, I'm not my instrument. You can tell me that I didn't do something or something didn't sound well, and that's fine, because I'm not that piano." - P36(NT-MD) "How do we make you relaxed to allow you to perform efficiently and vocally deliver what you need to?" - P48(NT-MP) "I was trying to say that I... I can't go on, and they were like you have to... you seem... it seems like you are well enough, kind of thing. And, I did, and then I had to go off mid-show." - P9(NT-MTP) "I feel comfortable in expressing myself, but it usually means I have to fight for what I want or need and sometimes being put in a position of having to work through even when I know I shouldn't to not damage my voice further." - P9(Q-MTP) "lack of empathy to be honest about what it is that a singer is dealing with when they've got vocal fatigue, I think there's a lot of pressures from not only like people creatively, but people, like, higher up in, like, production offices, who never meet you, never see you, don't understand the voice at all." - P41(FG2-MTP) "I'm comfortable discussing it but I wouldn't go so far as to advise anything beyond rest, I would always direct them to a technical specialist". - P21(Q-MD), "How to support singers experiencing it in session" - P1(Q-MP) "How to spot it early and advice on how to prevent it." - P2(Q-MP) "Helping a singer manage it during a session when it occurs." - P25(Q-MP) "we're not really told, like, I suppose, like, on jobs that you're not really told, oh, make sure that you're steaming, doing this, it's just expected that you should know". - P27(NT-MTP) "When they're saying, can you growl on this? Well, am I growing in a safe way? Probably not, I don't know?" - P27(NT-MTP) "Building vocal stamina healthy and maintaining it without causing vocal damage". - P29(Q-MTP) "they'd turn your mic off, so you wouldn't have to sing. Okay. That's to save the show, basically. So you'd come and mine as an ensemble member to then make sure the show happens, but you're still doing the physical". - P27(NT-MTP) In vivo "I wanna know what I'm asking of you." - P36(NT-MD) "It's not about having the on-site physio, it was just we had a really good relationship with the whole situation, where, like, I could request, or I could say, hey, I think this person needs some vocal massage in between shows today and they'd say no problem". - P36(NT-MD) "You have to use an entire different language and an entire different set of vocabulary, because... The thing is, if you start talking about their singing without realising that it's them and their identity, they get upset, and that's... that's totally understandable, but also, now you're asking them to do something, but they're upset, and obviously, if your emotions are in your throat, you now are gonna not sing well again. So, like". - P36(NT-MD) "they treat us with such a different level than they treat cast, as in, like, hey guys, we're just gonna test the click, so if you wanna take your in-ears out, and we'll just see how light the click is." - P36(NT-MD) "And I'm like... Why do you value my ears more than their ears? Because you value my ears, but you haven't thought about valuing their voice, that they're singing against what they're hearing". - P36(NT-MD) "I've similarly called time on sessions multiple times because the vocalist is simply wearing out their voice, with the understanding we'll revisit or book another session at another time. It's principally about communicating that you understand and believe they have a better performance in them, and that rest is the most effective way to get there." - P48(Q-MP) "I feel like telling someone they're not singing very well today is, like... I feel like musicians can be very sensitive, and I feel like if it's a guitar player and you're, like, you're not playing very well, I think that's a lot different to telling someone they're not singing very well, because I feel like it feels more personal for some reason." - P2(NT-MP) In vivo "I can tell based on pretty much their demeanor, and I'd say it's more of a physical thing for me." - P48(NT-MP) "at least 10 days of, like, actually being sick, and that was before I got into the period of time of, like, needing to recover from being sick, which always seems to be a bit that everyone misses out. It's like, you're sick, you're well, so come back, but actually you're still dealing with the". - P41(FG2-MTP)	3. The Role and Impact of Collaborators in Supporting Professional Voice Users Around Vocal Fatigue	Sub Theme 1 What is a collaborator's role and responsibility to a professional voice user? - C351 - "although it's heavily linked to my job, it isn't my job" - C81 - Role dependant responsibility - C307 - Self reflection on responsibility to freelancers - C251 - Difficulty between creating a safe space and approaching vocal fatigue - C255 - Perceived differences in vocal health knowledge across industry roles - C153 - Musical director "first port of call" - C244 - Producer role in shaping vocalist performances - C248 - Reliance on observational judgment to view fatigue - C249 - Reliance on feedback from artists/performer - C260 - Expectation from producers for performances to improve - C66 - formal sick leave support - C62 - Mic turned off to reduce vocal demand - C327 - Understanding own knowledge and directing voice users to qualified professionals - C207 - Education for music producers and musicians can enable more productive sessions - C167 - Experiential understanding of performance demands (MD speaking about learning what the performers actually have to do - <slit wise) - C160 - Warm ups as indicator to visually assess how performers are feeling - C169 - Proactive discussions around vocal health and fatigue - C172 - Recommendations for Musical Directors to engage in extra knowledge development - C173 - Benefits of MD's watching sessions with vocal coaches - C174 - Instrumental training effects perception of singing - C189 - Limited discussion around vocal fatigue in music production contexts - C195 - Limited knowledge surrounding vocal fatigue - C274 - Lack of understanding around vocal fatigue from professional collaborators - C299 - Lack of understanding from authoritative figures - C349 - Desire to increase knowledge surrounding how to support those experiencing vocal fatigue within a session/workplace - C305 - Difficulty to manage fatigue in a group setting - C152 - Need for more guidance and support from Musical Directors - C153 - Musical director "first port of call" - C167 - Supportive workplace culture for vocal health - C176 - Importance of sensitive communication around the voice - C162 - Difference of treatment between musicians and performers - C199 - Communication influenced by relationship in the workplace - C200 - Difficulty to discuss vocal fatigue without offending - C201 - Musicians seeking reassurance to stop session - C233 - "sometimes in the recording space, I think vocalists get left behind." - C244 - Producer role in shaping vocalist performances - C248 - Reliance on observational judgment to view fatigue - C249 - Reliance on feedback from artists/performer - C260 - Expectation from producers for performances to improve - C268 - Misunderstanding of post illness recovery time - C302 - Relationships between performers and sound department - C311 - Supportive booking agency - C332 - Lack of knowledge around voice management - C340 - "Support from a voice department" - C347 - Importance of honesty surrounding vocal fatigue Sub Theme 2 The impact of collaborators and professional contexts on vocal fatigue among professional voice users - C171 - Variation in Musical director vocal health knowledge - C27 - Didn't want to let the company down - C67 - Cast members' ill health creates extra pressure - C70 - Feeling of guilt towards collaborators/peers/co-workers surrounding vocal fatigue - C25 - Feeling obligated to perform - C41 - Pressure of being a swing - C63 - "Show must go on" mentality - C68 - Pressure to push through - C97 - Potential judgement due to vocal fatigue - C103 - Fear of judgement when seeking support - C132 - Fear of perception of laziness - C288 - Fear of being viewed as difficult - C330 - Pressure for performers to always be "full out" - C37 - Pressure to create loud sound - C45 - Pressure of timescales - C274 - Lack of understanding around vocal fatigue from professional collaborators - C299 - Lack of understanding from authoritative figures - C158 - Older/more experienced performers are better at advocating for themselves - C94 - Fatigue is a taboo subject - C44 - Uncertainty about creating new sounds using safe vocal technique - C201 - Musicians seeking reassurance to stop session - C233 - "sometimes in the recording space, I think vocalists get left behind." - C142 - Hei-achy of roles within a company - C143 - Hesitancy to confirm taking time off for vocal fatigue - C174 - Instrumental training effects perception of singing - C274 - Lack of understanding around vocal fatigue from professional collaborators - C269 - Lack of understanding from authoritative figures - C43 - Expectation of knowledge around vocal hygiene - C182 - Need for more guidance and support from Musical Directors - C176 - Importance of sensitive communication around the voice - C34 - High vocal expectation - C64 - Generational differences / Impact of age - C162 - Difference of treatment between musicians and performers - C199 - Communication influenced by relationship in the workplace - C302 - Relationships between performers and sound department - C306 - Performers reluctant to use tracks as resources to aid them - C346 - Comfortable discussing with collaborators - C151 - Hard to break older generation performers out of habits - C161 - Stigma around vocal health and fatigue - C131 - The need to justify vocal limitations - C65 - Balancing resilience and health - C207 - Lack of close communication with other singers surrounding vocal health - C348 - Unconfident with communication surrounding vocal fatigue - C5 - Preparation dependant on role - C12 - Combined vocal demand - C43 - Expectation of knowledge around vocal hygiene Sub Theme 3 The role of training, education and alternative sources of information surrounding vocal fatigue - C121 - Vocal health advice from celebrities who are not qualified - C122 - Inconsistent information surrounding vocal health on social media - C124 - Prioritising information from successful performers - C125 - Limited visibility of contributing factors to those discussing vocal health on social media - C146 - Power of podcast guidance - C228 - Fear around vocal injury due to celebrity publication - C81 - Importance of vocal fatigue education within training - C85 - Vocal training demands - C98 - Culture of disguising illness in training - C101 - Inconsistent effectiveness of taught strategies - C105 - Shame of vocal fatigue badges/signs within training - C107 - Need for preventative education within training - C87 - Fluctuation of contact singing time within training - C116 - Suggestion that guide would be useful at the start of training to develop prevention - C98 - Culture of disguising illness in training - C113 - Inconsistent vocal technique guidance within training - C134 - Contradiction between advice of staff and their own behaviour - C135 - Lack of credibility surrounding advice - C145 - Frequent repetition of existing knowledge - C297 - Vocal health misconceptions taught through training and professional environments - C231 - Generational divide in vocal education - C144 - Limited exposure to vocal health education - C164 - Transition from training into performance demands - C305 - More regular check in's surrounding vocal fatigue in training - C310 - Differences between music and musical theatre vocal training - C161 - Stigma around vocal health and fatigue - C65 - Balancing resilience and health
					QUANTS DATA - Familiarity with the concept (Collab) - Worked with a PVC who was experiencing the condition - Confidence in ability to recognise the condition (collab) - Comfortable discussing with collaborators

Second Cycle Category	Participants/ Roles	Codes Included	Selected Quotes	Theme	Sub themes
Warm-ups & Cool-downs	MTP - 11 M - 7 S/G - 8 MP - 4 MD - 4	- C2 - Importance of a (self developed) warm up - C3 - Company led warm up - C227 - Insufficient warm up causing vocal fatigue - C344 - Importance of warm ups before ANY voice use - C180 - Longer warm ups into sessions when feeling fatigued - C268 - Limited use of warm ups in recording sessions - C218 - Importance of cool downs - C40 - Limited preparation before high vocal demand	"And a lot of the lads that sang higher were like, I just don't get why we would do a warm-up, and then... and then do loads of lower... whereas for me I was like well actually I find it easier to get higher when I Really roll out everything in my lower range" - P42(FG2-MTP) "I think it's become, like, a structured thing in the industry that you must turn up to warm-up, and you must join in" when actually, to me, it's much more professional to take myself off and do the vocal warm-up that I need to do for what my voice is doing in that show" - P41(FG2-MTP) "I sometimes do a vocal warm up prior to teaching but I should do this on a much more regular basis" - P27(Q-MTP) "I very rarely see people warm up" - P2(NT-MP)	4. Moving from Reactive Management to Prevention of Vocal Fatigue	Sub Theme 1 <i>The dominance of reactive management over prevention</i> - C107 - Need for preventative education within training - C58 - Seeking immediate relief - C343 - Limited prevention strategies - C60 - Reactive management of vocal fatigue over prevention - C102 - Vocal fatigue recognised when it occurred - C183 - Prevention prioritised after a problem has occurred - C141 - Anticipation prevention prior to upcoming engagements - C116 - Suggestion that guide would be useful at the start of training to develop prevention - C335 - Reduce vocal effort when feeling fatigued - C210 - Prevention prioritised rather than management - C279 - Not a clear definition between strategies for prevention and immediate relief - C342 - Same strategies for both prevention and management - C224 - Workload reduction as a preventative measure - C334 - "Focusing on technique when fatigued" - C106 - Compensatory effort during vocal fatigue - C157 - Psychological drive to compensate for vocal fatigue - C32 - Too much vocal effort - C38 - Adapt vocally to aid the voice when tired - C22 - Pushing through vocal difficulties - C21 - Adrenaline takes over Sub Theme 2 <i>The complexities, myths and misconceptions surrounding vocal fatigue management strategies</i> - C125 - Limited viability of contributing factors to those discussing vocal health on social media - C122 - Incorrect information surrounding vocal health on social media - C112 - Following voice care practices without understanding - C297 - Vocal health misconceptions taught through training and professional environments - C101 - Inconsistent effectiveness of taught strategies - C48 - Reliance on word of mouth advice - C47 - Vocal steaming - C48 - Uncertainty around vocal steaming - C49 - Nebulising - C50 - Nebuliser for immediate singing - C61 - Uncertainty around methods - C52 - Steam for vocal rest - C63 - Uncertainty about treatment effectiveness - C54 - Inconsistency of mitigation strategies - C55 - Use of lozenges - C56 - Perceived benefit of lozenges - C57 - Trial and error approach - C69 - Commercially promoted vocal remedies - C86 - Hydration as strategy - C89 - Self led vocal message to aid fatigue - C80 - Importance of a qualified professional - C104 - Vocal Rest - C264 - Inadequate time to implement vocal rest - C136 - Steaming and nebulising for instant hydration - C137 - Favour for steaming for instant hydration - C138 - Substitute steaming for lack of water intake - C139 - Convenience of strategies - C140 - Preference for steaming over nebulising - C168 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths?) - C222 - Straw/SOVT work to manage the voice - C219 - Honey to keep on top of voice care - C266 - Reliance on commercial remedies - C277 - Vocal message to aid muscular tension - C278 - Sleep and its relationship to vocal fatigue - C107 - Limited knowledge of management strategies - C134 - Contradiction between advice of staff and their own behaviour - C135 - Lack of credibility surrounding advice - C145 - Frequent repetition of existing knowledge - C112 - Following voice care practices without understanding - C336 - Suggested medication to manage inflammation - C147 - Influence of peers on vocal care strategies (trends) - C159 - Misconceptions about immediate fatigue management - C353 - More strategies to help professional voice users prevent and manage vocal fatigue - C315 - Taking a break reduces stamina/resilience Sub Theme 3 <i>Understanding and responding to the individual experiences of vocal fatigue</i> - C243 - Training isn't individualised and strategies are generic - C2 - Importance of a (self developed) warm up - C3 - Company led warm up - C218 - Importance of cool downs - C286 - Voice rest given as a common strategy but not always relevant - C236 - Importance of daily check ins vocally and self monitoring - C316 - Importance of consistent vocal maintenance - C276 - Using all possible remedies daily for maintenance - C129 - Limitations of vocal self assessment methods - C333 - Productive voice work to manage vocal fatigue - C202 - Singing lessons as an aid for vocal maintenance - C338 - Finding moments within performances for recovery time - C345 - Work with the sound/equipment to enable reduction of vocal effort - C164 - Reducing unnecessary vocal load within rehearsals - C186 - Prolonging sessions to facilitate recovery as strategy - C212 - Efficient vocal technique reduces effort QUANTS - Strategy data
Feedback on educational guide and implementation	4 x MTP 4 x M 4 x SG 4 x MD 3 x MD	- C72 - Clear and accessible design - C73 - Logical structure of progression (Guide) - C74 - Relatability of the symptoms - C75 - Accessible explanation of clinical terminology - C76 - New and thought provoking information - C77 - Improving guide readability - C78 - Optional choice for depth of information - C79 - Balancing scientific detail with accessibility - C109 - Guide provides immediate clarification - C111 - Expanded understanding of different causes that can potentially contribute to vocal fatigue - C115 - Guide increases awareness of the relationships between technique and fatigue - C117 - Preference for a hard copy alongside digital - C148 - Appreciated section on symptom response and identification structure - C149 - Black backgrounds can obscure section importance - C185 - Manageable amount of content - C186 - Cognitive overload has been reduced through the design - C205 - Perceived as credible healthcare style resource - C206 - Suggested inclusion of dangers to instil fear into singers - C235 - Guide promotes independent self management and awareness - C241 - request to turn the guide into a book - C242 - Suggestion for interactive and other formats, such as quizzes, ads or digital links to helpful ads - C254 - Need for rationale before reading the guide - C258 - Appreciation of scientific depth - C256 - Suggestion for a specialist and general version of the guide - C266 - Connection with all the potential causes in the guide - C280 - Praise for the questioning nature of the guide, to provoke thought - C317 - Using the guide as a check in resource - C82 - Workplace distribution of fatigue resources - C116 - Suggestion that guide would be useful at the start of training to develop prevention - C150 - Guides to be used in college and university settings - C287 - Suggestion for guide to be distributed in health environments - C282 - Beneficial for anyone working with voices or using their voice - C240 - Relevance of guide for those working with and alongside singers - C83 - Integration with existing support systems - C110 - Expanded understanding of vocal fatigue severity - C227 - Interest around the different underlying mechanisms - C238 - Applied vocal health information perceived as more valuable than anatomical information alone - C228 - Guide integrated into individual singing lesson practice - C281 - Beneficial within a voice care setting - C354 - Relieves negativity surrounding the condition	"I think it's very nicely laid out" - P27(NT-MTP) "Super easy to understand and, like, really clear and, like, tons of information. But, like, in a good way, like, it's not overwhelming" - P2(NT-MP) "Especially on the first bit, like, kind of acknowledging that it's, like, finding the symptoms, assess it, really, because I think there's, like, you've been quite realistic that it's not just like, oh, your voice is tired, cancel all your gigs ever, it's like, evaluate the impact of it, consider potential causes, targeted strategies" - P12(D-M) "because there's like a scientific moment, either people go, oh, let me, I mean, what is it? Or people go, oh God, that's not me." - P27(NT-MTP) "I think definitely like straight away like my question to you was like what is vocal fatigue? Like what is the definition actually? And straight away I'm like oh my god there's the question, there's the answer" - P3(NT-S/G) "There is a lot of taboo about vocal health and vocal fatigue, like You know, not having dairy or not drinking or not having coffee or whatever if it is, it's really nice to have a clear, succinct guide that's like, like you say, it's like a 5 minute read and I really specifically outlines everything that you need to know. And I think we've all found things on there that we didn't know about" - P26(FG2-S/G) "I like how it's got, like, different pictures, and it breaks it up really nicely. It's not just like, here's a guide, it's like a big Word document. I think that it's nice how it is broken up into sections, and it sort of outlines what it's going to discuss, and it's got, like, little pictures. I feel like a lot of people in this industry are always super busy and it's not like daunting to look at. It's very like inviting" - P26(FG2-S/G) "That's what scares you into doing it. I suppose people react differently to stuff" - P2(NT-MP) "I did wonder if why should I care about this a bit more needs to come first" - P48(NT-MP) "I do think your scientific bit is really good. I think there are definitely elements in that that I understood a little bit better" - P48(NT-MP) "A lot of the time people just go like "oh my voice is so tired" and that's just as far as they register that their voice is tired" - P42(FG2-MTP) "I think 100% for like students coming through that want to go into this industry, I think it's a perfect, like, here's a guide, these are the types of things that you should be doing now" - P27(NT-MTP) "[the studio], is like a perfect place to have something like that, like either in a leaflet or like a poster on the wall." - P2(NT-MP) "For me, this is the kind of thing that should be up on every classroom. I would find this more beneficial than a picture of vocal folds." - P8(NT-M) "It feels a lot like the kind of thing you'd pick up in a GP surgery, especially in the UK, that kind of thing is, is always very much appreciated, is the kind of, I mean, you could probably sell it to the NHS. They'd be like, hey, we'll put these in our GP surgeries." - P48(NT-MP) "any industry where voice is a big part of that industry, I think, having this information would be so helpful." - P9(NT-MTP) "I think anybody that's trying to make a career by using the voice need to know this stuff really" - P30(F-G1-MP) "I think it's useful for creatives to understand what it is that voice users are coming to them with, I think that, like education and it delivered to you in a succinct, direct, informative way, where people don't feel like they have to go and do whatever course they're being sold online to understand the voice, like, if this information was, like, readily available to them, in a way that, like, in a... articulated in a way that they could understand. I think that's important, and I think you do that brilliantly." - P41(FG2-MTP) "It'd be helpful for, like, other people in the band that aren't singers as well." - P12(D-M) "Equality" - P27(NT-MTP) "I love, like, the whole scientific elements of the voice, and it would be nice if we got taught this." - P49(NT-S/G) "I always thought fatigue just meant, like, oh, it's a little bit tired, but not gone" - P31(NT-S/G) "Of course, you train not to do that. So sometimes when things happen, you're like, oh, actually, maybe there was a loss of focus because I'm just not altogether today or whatever" - P9(NT-M) "So when I like having these kind of conversations and understanding, whereas like a lot of the time when they'd be like, this is the voice, this is the vocal folds, I was like, okay, great, but they're not my vocal folds. So I didn't really like feel the connection. Whereas with this, it's kind of like it's a little bit more relatable." - P8(NT-M) "for me this gets rid of the idea of the doom and gloom of fatigue." - P42(FG2-MTP)	5. Participant Perspectives on the Educational Guide: Feedback, Learning and Relevance.	Sub Theme 1 <i>Feedback on the structure, format and accessibility of the educational guide</i> - C72 - Clear and accessible design - C73 - Logical structure of progression - C75 - Accessible explanation of clinical terminology - C77 - Suggestions for improving guide readability - C77 - Improving guide readability - C78 - Optional choice for depth of information - C79 - Balancing scientific detail with accessibility - C117 - Preference for a hard copy alongside digital - C149 - Black backgrounds can obscure section importance - C185 - Manageable amount of content - C186 - Cognitive overload has been reduced through the design - C241 - request to turn the guide into a book - C242 - Suggestion for interactive and other formats, such as quizzes, ads or digital links to helpful ads Sub Theme 2 <i>Participant learning, key areas of engagement and suggested additions</i> - C76 - New and thought provoking information - C109 - Guide provides immediate clarification - C111 - Expanded understanding of different causes that can potentially contribute to vocal fatigue - C115 - Guide increases awareness of the relationships between technique and fatigue - C148 - Appreciated section on symptom response and identification structure - C206 - Suggested inclusion of dangers to instil fear into singers - C235 - Guide promotes independent self management and awareness - C254 - Need for rationale before reading the guide - C258 - Appreciation of scientific depth - C256 - Suggestion for a specialist and general version of the guide - C280 - Praise for the questioning nature of the guide, to provoke thought - C110 - Expanded understanding of vocal fatigue severity - C237 - Interest around the different underlying mechanisms - C304 - Relieves negativity surrounding the condition - C74 - Relatability of the symptoms - C266 - Connection with all the potential causes in the guide Sub Theme 3 <i>The potential application of the educational guide in professional practice</i> - C205 - Perceived as credible healthcare style resource - C317 - Using the guide as a check in resource - C241 - Importance of vocal fatigue education within training - C82 - Workplace distribution of fatigue resources - C116 - Suggestion that guide would be useful at the start of training to develop prevention - C150 - Guides to be used in college and university settings - C257 - Suggestion for guide to be distributed in health environments - C282 - Beneficial for anyone working with voices or using their voice - C240 - Relevance of guide for those working with and alongside singers - C83 - Integration with existing support systems - C238 - Applied vocal health information perceived as more valuable than anatomical information alone - C239 - Guide integrated into individual singing lesson practice - C281 - Beneficial within a voice care setting

Second Cycle Category	Participants/ Roles	Codes Included	Selected Quotes	Theme	Sub themes
Emotional and psychological responses surrounding vocal fatigue	3 x MTP 4 x M S/G x 5 MP x 5 MD x 6	- C18 - Frustration with vocal limitations - C19 - Emotional impact on voice - C28 - Feeling of anxiety due to fatigue - C28 - Fear of voice not functioning - C28 - Performance anxiety - C127 - Vocal fatigue causing stress (emotional impact) - C31 - Embarrassment around vocal fatigue - C36 - Vocal fatigue causing embarrassment - C33 - Feel like fatigue is personal failure - C228 - Paranoia about getting vocal fatigue - C345 - Vocal fatigue significantly mental factor - C301 - Long term psychological effects of vocal fatigue - C326 - Vocal fatigue linked to mental health - C48 - Personal pressure - C162 - Fear of disclosing vocal fatigue - C165 - The need for validation and wanting to impress - C272 - Shame around vocal fatigue - C165 - Shame of vocal fatigue badges/signs within training - C273 - Fear of vocal injury - C32 - Belief that performers shouldn't feel fatigue - C209 - "Negative connotations towards vocal fatigue" - C163 - Catastrophising vocal fatigue symptoms - C203 - Stigma associated with singing lessons - C232 - Stigma surrounding vocal fatigue in recording scenarios - C341 - "Vocal health shouldn't be a source of shame."	"I can't get to that high register or I can't quite hit the notes the way I get frustrated." - P27(NT-MTP) "I think for me, it, it mainly looks like frustration" - C58 "there's so much on the line for someone like me with my voice, so it's, like, you're always on edge." - P8(NT-M) "I've got like a run of quite a lot of gigs, like back to back, I've almost before like got this anxiety of, oh, this is gonna be hard on the voice" - P12(D-M) "It's more like a mental thing for me. It's more about the panic of, oh no, is my voice gonna come out?" - P27(NT-MTP) "Get rid of the fatigue as quickly as possible, but I think sometimes that stress, which is, I guess, another response to the mental side of it, is the thing that sometimes makes it worse." - P8(NT-M) "Sometimes I feel quite, like, embarrassed" - P31(NT-S/G) "I did three songs and packed up and went home because I was embarrassed to continue." - P20(NT-M) "you don't want to do that to a paying audience" - P9(NT-MTP) "when vocal fatigue occurs, I feel embarrassed as if everyone knows that my voice is not strong and isn't being looked after correctly, even when I'm trying to." - P31(Q-S/G) "I just wanted to close in on myself quite a lot." "I knew everyone was staring at me" "I didn't want them to think that I was vocally fatigued, even though I was." - P31(NT-S/G) "I don't know, because obviously, like, when you look at, like, training and stuff, they're like, oh, you're gonna do this for, like, a year, you'll be singing for a year, and, like, everyone seems to manage really well, so the fact that, like, when I'm vocally fatigued, I'm like, oh, I can't - I feel like it's wrong" - P31(NT-S/G) "I just refused to let myself get so fatigued. I don't know if that's, like, a toxic trait, but I just was like, I need to do this." - P8(NT-M) "I can't also be your whole 24 hours every single day, and you're paranoid to even drink a coffee" - P4(FG2-S/G) "I actually think sometimes it's the mentality of fearing losing your voice that is worse than actually what you're doing." - P41(FG2-MTP) "vocal fatigue is not only physical but mental too, it's the feeling of losing your creativity and manipulation of your voice from overuse" - P33(Q-M) "As a music producer I think we have to learn more psychology, and how that can help release tension." - P51(Q-MP) "The stress of not getting a note 'right'." - P51 (Q-MP) "you've got the young grads who are terrified of telling you that they don't feel vocally, fighting fit" - P36(NT-MD) "they're trying to make a good first impression, because it's the first time that they're working, and it's the first time that they're seeing these people, so they're trying to sing out." - P36(NT-MD) "working your way up to working with better and bigger producers. You don't want to be the guy who turns up. I think the first session is definitely always worse. You don't want to be like cracking on notes, you don't want to, Not not singing in a way that you know would make yourself proud in the room so yeah." - P8(NT-M) "It's like a sign saying that I'm not okay, I don't like it, Oh look, I've got something wrong with me". - P31(NT-S/G) "I know that a performer and singer shouldn't get fatigued" - P31(NT-S/G) In vivo - "It's hard not to have, like, a negative connotation linked with vocal fatigue." P8(NT-M) "The depreciation of the voice overtime due to numerous variables including but not limited to strain, overuse, improper support, improper breathing, physiology and illness." - P3(Q-S/G) "Vocal Fatigue is when the muscles that work together to produce voice have been overworked or abused" - P52(Q-MD) "oh, that means I have noddles and I can't sing for the next six months. And it's like, one, two, skip a few." - P36(NT-MD) "Not in a, like, horrible way, but maybe to look for, like, a singing lesson in, like, a... like, not to get better at singing, but, you know, to, like, make sure they're doing the correct technique." - P2(NT-MP) "I would say like there probably is a stigma." - P8(NT-M) In vivo	2. The Multifaceted Experience and Perception of Vocal Fatigue Among Professional Voice Users and Their Collaborators AND 1. Vocal Fatigue Amidst the Pressures and Demands of Professional Voice Users	SEE ABOVE
Influence of audio, sound and in ear monitoring on vocal performance	3 x MTP 2 x MD 7 x M 1 x MP	- C35 - Impact of audio feedback on stage - C36 - No in ears in musicals theatre - C173 - Use of in ears within musical theatre - C180 - Insufficient training on in ear monitor use - C181 - Effect of poor in ear monitor balance on performance - C313 - Poor monitoring/sound effects vocal performance/fatigue - C314 - Benefit of in ears	"A lot of people didn't know what to ask for.... basically I could tell that she had asked for something that didn't fix it. I'll ask for something else that didn't fix it." - P36(NT-MD)	1. Vocal Fatigue Amidst the Pressures and Demands of Professional Voice Users	SEE ABOVE
Lifestyle and recreational habits of professional voice users	4 x MTP 3 x S/G 2 x MD 5 x M 2 x MP	- C23 - Guilt around non-work activities - C24 - Recreational habits & voice use	"so that you don't feel like you're behold to your job over your life" - P41(FG2-MTP) "I've done a lot of drinking, a lot of singing along, watching music, talking over loud music" - P27(NT-MTP) "Having the uni experience, drinking, going to clubs and screaming." - P49(NT-S/G) "like, I can't be bothered to deal with, like, having a strained voice, or a quiet voice, so I'll just, like, stop singing, like, stop shouting, or stop singing along to songs." - P8(NT-M) "It's my choices outside of the show a lot of the time as well - I think what's also a big part of our industry is, like, loud environments after work." - P9(NT-MTP) "Excessive shouting, Alcohol" - P4(Q-S/G) "Substance use. Poor maintenance between sessions." - P48(Q-MP) "I'm also mindful on weeks where I have multiple gigs of limiting my social events and avoiding anything that is vocally demanding." - P15(Q-M)	1. Vocal Fatigue Amidst the Pressures and Demands of Professional Voice Users	SEE ABOVE

Second Cycle Category	Participants/ Roles	Codes Included	Selected Quotes	Theme	Sub themes
Approaches to vocal fatigue management and prevention strategies, including areas of uncertainty	14 x MTP 12 x M 14 x S/G 7 x MP 9 x MD	- C46 - Reliance on word of mouth advice - C47 - Vocal steaming - C48 - Uncertainty around vocal steaming - C49 - Nebulising - C50 - Nebuliser for immediate singing - C51 - Uncertainty around methods - C52 - Steam for vocal rest - C53 - Uncertainty about treatment effectiveness - C54 - Inconsistency of mitigation strategies - C55 - Use of lozenges - C56 - Perceived benefit of lozenges - C57 - Trial and error approach - C58 - Seeking immediate relief - C59 - Commercially promoted vocal remedies - C86 - Hydration as strategy - C99 - Self led vocal massage to aid fatigue - C104 - Vocal Rest - C136 - Steaming and nebulising for instant hydration - C137 - Favour for steaming for instant hydration - C138 - Substitute steaming for lack of water intake - C139 - Convenience of strategies - C140 - Preference for steaming over nebulising - C198 - Discussion of vocal remedies, herbal teas, honey, salt water, no dairy (myths) - C222 - Straw/COV work to manage the voice - C219 - Honey to keep on top of voice care - C265 - Reliance on commercial remedies - C276 - Using all possible remedies daily for maintenance - C277 - Vocal massage to aid muscular tension - C278 - Sleep and its relationship to vocal fatigue - C286 - Voice rest given as a common strategy but not always relevant - C336 - Suggested medication to manage inflammation - C38 - Adapt vocally to aid the voice when tired - C333 - Productive voice work to manage vocal fatigue - C80 - Importance of a qualified professional - C129 - Limitations of vocal self assessment methods - C147 - Influence of peers on vocal care strategies (trends) - C159 - Misconceptions about immediate fatigue management - C184 - Reducing unnecessary vocal load within rehearsals - C196 - Postponing sessions to facilitate recovery as strategy - C197 - Limited knowledge of management strategies - C202 - Singing lessons as an aid for vocal maintenance - C210 - Prevention prioritised rather than management - C212 - Efficient vocal technique reduces effort - C224 - Workload reduction as a preventative measure - C236 - Importance of daily check ins vocally and self monitoring - C264 - Inadequate time to implement vocal rest - C279 - Not a clear definition between strategies for prevention and immediate relief - C315 - Taking a break reduces stamina/resilience - C316 - Importance of consistent vocal maintenance - C334 - 'Focusing on technique when fatigued' - C338 - Finding moments within performances for recovery time - C342 - Same strategies for both prevention and management - C345 - Work with the sound/equipment to enable reduction of vocal effort - C353 - More strategies to help professional voice users prevent and manage vocal fatigue	"I feel like I've been told it's dehydration." - P31(NT-S/G) "... she always brings vocal zones in. I mean, I keep some in now, anyway. I think they're vocal zones, then sweet things." - P30(F-G1-MP) "I am a big fan of nebulising and steaming, just like keep hydrated. I like to steam in the morning and then not talk and then nebulise throughout the day just to keep it..." - P49(NT-S/G) "I mean, I just get screamed at to steam all the time." - P46(D-M) "I mean, I just get screamed at to steam all the time." but I think overall hydration helps me a lot more." - P46(D-M) "I feel like the nebuliser for me makes me feel more moist." - P27(NT-MTP) "I alternate between a... a 0.5% saline solution, and I've got a 6% hyper... Because I'm asthmatic as well, which doesn't help matters. So the 6%, because you're introducing A salt environment, it actually wicks the... Moisture. Which helps to loosen the secretions" P20(NT-M) "I'm using that between gigging days as well as on gigging days. So even when I'm not gigging, I will use it occasionally. I don't use it every day, just maybe 2 or 3 times during the week and then on gig days I will nebulise as well." - P20(NT-M) "The one that's helped me the most is the nebulizer. I would say..." - P20(NT-M) "I nebulise, and I steam daily as well." - P9(NT-MTP) "I feel like the nebulizing really helps to rehydrate, especially when I'm when I'm a bit swollen, or when I'm more dry than usual. I think the nebulizing feels like it's like a... it's a bit of a quick fix, but it, helped me to get through that day, like, with the extra moisture and hydration that brings." - P9(NT-MTP) "I'm doing it because I think I should..." - P27(NT-MTP) "It's give some stuff a go and see what happens" - P27(NT-MTP) "But I think when you describe vocal fatigue, the kind of things that creatives will throw at you is, like, have you steamed? Have you got your nebulizer? Is there anything we can do to help you leading up to the show?" - P4(F-G2-MTP) "I've used to get gifted loads of Jakemans and everybody, all the leads used to suck on the Jakemans in between scenes" - P27(NT-MTP) "I feel like things like vocal zone are relied upon a lot and honey in certain teas, but I don't know if I've personally seen them make a huge difference." - P48(Q-MP) "Facial/jaw massage to reduce tension and stiffness, I found it somewhat helpful but more of a temporary fix, that was only beneficial for a while. However, in the time when I was the busiest, this did not help me as well as it normally would." - P31(Q-S/G) "They all come up to me and go, oh, I'm on vocal rest this week but you also then see them talking at full volume in corridors and not actually going on vocal rest." - P18(F-G1-MD) "So I've sometimes found, as well, just talking can, like, be so fatiguing." - P12(D-M) "Rest. There is nothing better than complete 100% voice rest." - P19(Q-M) "When, like, if you've got, like, an audition in the morning, like, it just... if you've not woken up early enough to drink enough water, like, it just gives you that instant..." - P49(NT-S/G) "convenience of the practice because you can't always bring a kettle around with you to boil the water." - P49(NT-S/G) "I think people say, like, certain teas and stuff, like mint teas, or peppermint teas, or whatever. I don't know if there's any truth behind that?" - P2(NT-MP) "the salt water, it did something where like, obviously I think it was an illness as well, but I think it might have been a placebo effect where it just kind of opened up, opened up my throat a lot and like kind of relaxed me." - P8(NT-M) "I'm quite superstitious, whereas, like, I won't... if I eat, it has to be, like, hours and hours before, because I know that, for me, eating and that process of eating, like, actually affects my voice, and it's just... sometimes people don't eat enough or eat at all." - P8(NT-M) "we stay off the dairy, we stay, you know, we get the honey and maybe the teas out, but..." - P48(NT-MP) "He just drank heavily whiskey to just keep things lubricated and warm and all that stuff in the studio as the vocal sessions went down." - P48(NT-MP) "I think there's a lot of myths that make people sort of terrified to do anything" - P41(F-G2-MTP) "... she always brings vocal zones in. I mean, I keep some in now, anyway. I think they're vocal zones, then sweet things." - P30(F-G1-MP) "top grade honey, gargling salt water?" - P8(Q-M) "Corvonia drops." - P23(Q-M) "using natural remedies such as lemon, honey and ginger." - P37(Q-S/G) "eating raw ginger" - P38(Q-MTP) "warm water, herbal teas" - P25(Q-MP) "Hot water with honey and ginger." - P50(Q-MD) "Propolis, Anthistamines, Honey" - P33(Q-M) - (As prevention strategies to manage vocal fatigue) "I feel like things like vocal zone are relied upon a lot and honey in certain teas, but I don't know if I've personally seen them make a huge difference. I am a proponent of less dairy and room temperature water. Is that even coming from a place of sub/research?" - P48(Q-MP) "It distracts me from the exercise itself, and I kind of go, like, my focus is on the straw." - P8(NT-M) "I got this, like, and super expensive like top grade honey." - P8(NT-M) "I have vocal zones on pre-order on Amazon, so I do constantly, if I feel... Or if I know I'm going to be singing, I'll take a vocal zone." - P20(NT-M) "Particularly throughout while I'm singing, the vocal zones do help." - P20(NT-M) "Yeah, so for me personally, I try to drink like a lot of water, like three liters, four liters a day. And then I do straw work. Both, like, straws just in the air, but also straws in water. And then also, like, doing fine, kind of, siren closure work. And... and vocal rest, like, not overdo it, and I nebulise, and I steam daily as well." - P9(NT-MTP) "the only extreme that people ever seem to go to is, like, oh, just, like, don't speak for the day. Yeah. And then it's as if, like, that is some... as if, like, if you were Had an injury and they were just like just don't dance for a bit that then it would be fine whereas sometimes that makes it worse because then it's, it sort of is looking in what the injury is. Whilst you're resting, rather than being like, oh, you need to work through that to make sure that everything comes out healthier at the other side." - P42(F-G2-MTP) "btoprofen to lower inflammation but not to sing on. (However I have sung on it in special cases where I had no choice, but it requires careful use to not oversing)" - P18(Q-M) "If I notice vocal fatigue happening in a rehearsal I'm running, I change something they're doing - examples include use head voice instead of belt to mark a passage, learn passages either up or down an octave depending on what's comfortable, limiting time spent at extremes of the voice." - P18(Q-MD) "your mate's not a qualified vocal professional" - P27(NT-MTP) "It's do it a few times to see, like, how it'll come out. If it's not coming out and it's really weak and really breathy and, like, it breaks a lot, it's use that as an indication that's, like, don't even try and sing. If it's, like, a bit croaky on the first one." - P49(NT-S/G) "massage things and it's like for like the back of their neck. And like one of my friends had them and I borrowed it once and I was like, oh, this doesn't really do anything for me personally." - P28(F-G2-S/G) "They'll tell me - I just need to drink loads of water." - P36(NT-MD) "In tech, you do things over and over and over again." - P4(F-G2-S/G) "the recording world is a little different because we have the option to go, let's do it another day" - P48(NT-MP) "Hydration and vocal rest is needed as a solution." - P31(Q-S/G) "I don't expect to increase my range at my age, particularly as long as I can maintain what I do have, but it was for... for warm-up strategies, and we recorded some stuff, which I now do listen to, and maybe..." - P20(NT-M) "One big one for me is actually being almost like conditioning, when I was having regular sessions and I was doing straw work as well. And I've really noticed because I've not been gigging as much, I'm not doing as much straw work. I feel like my voice has become less resilient because I'm using it less, basically." - P12(D-M) "a lot of the practice I've done, it's around like not working hard. It's kind of supposed to feel like less effort a lot of the time and being quite like clever with how you use your voice." - P8(NT-M) "In Sweden as well as he works, in the UK and... he's on more money and they only do four shows a week. Because they felt like it was more of, like, a buzz to have less shows, so there is more premium, more exclusive, but... and there was so much better for vocal quality. And I think, like, I don't know, even 7 shows would probably make a massive difference to a lot of these performers" - P8(NT-M) "I try to then vocal rest, which is difficult, again, depending on what's happening" - P20(NT-M) "If I probably religiously did it, I'd probably find the benefits." - P46(D-M) In vivo "Let the microphone take a bit of the responsibility." - P43(Q-M) "Prevention especially in a long running situation like shows" - P34(Q-S/G) "How to manage it in an industry setting that is healthy but doesn't compromise your reputation in the industry" - P35(Q-S/G) "More strategies of prevention and coping would be super helpful" - P22(Q-S/G) "How to prevent And any useful tips for recovery" - P11(Q-MTP)	4. Moving from Reactive Management to Prevention of Vocal Fatigue	SEE ABOVE

Second Cycle Category	Participants/ Roles	Codes Included	Selected Quotes	Theme	Sub themes
Perceived causes of vocal fatigue	12 x MTP 12 x M 13 x SG 10 x MP 9 x MD	- C8 - High vocal workload - C284 - Overuse of voice - C11 - "shouting over louder music" - C178 - Environmental conditions contributing to vocal fatigue - C189 - Lack of vocal technique causing fatigue - C80 - Uncertainty around cause of vocal fatigue - C118 - Repetitive voice use - C133 - Constant voice use - C177 - Costumes impacting vocal performance and potentially fatigue - C213 - Vocal fatigue not always from singing - C292 - Acid reflux - C312 - Excitement takes over - C327 - Dehydration causing vocal fatigue - C329 - Menstrual cycle and its relationship to vocal fatigue - C329 - Attempting material out of the singers capabilities - C331 - Impact of a poor diet on vocal fatigue - C362 - Connection of speaking and accent to vocal fatigue - C170 - Seasonal effects on the voice - C319 - Lack of breath support leading to vocal fatigue - C32 - Too much vocal effort - C193 - Impact of long recording sessions - C247 - Impact of preparation before a session on vocal fatigue - C325 - Fitness and its relationship with vocal fatigue	"so it could be quite often that I'm using the voice before getting to work" - P27(NT-MTP) "I've had artists come in. I have, I had an artist specifically that she would play Broadway pretty much every night, and pretty much every day she was doing at least a show, and those shows are 4 hours straight." - P48(NT-MP) "I'm fully just talking and using my voice for the entire thing, and it's that kind of, like, you don't really get a break" - P42(FG2-MTP) "Making a heavy load of gigs more manageable" - P48(Q-M) In Vivo - P27(NT-MTP) (teaching setting) "leads that we're feeding off of what the ensemble are doing but we can't hear them so we're pushing and they're pushing so we can hear them" - P41(FG2-MTP) "Because their costumes were primarily made of plastic, it was really hot, which meant that they had to have quite a lot of aircon units backstage. So anytime they weren't on stage, they were in this, like Arctic gale of dry wind at them." - P36(NT-MD) "Haze" - P29 (Q-MTP) "bad air conditioning / humidity" - P33(Q-M) "With singing and, like, if you're doing the wrong technique when you're exercising, then it can obviously happen, like, much faster or worse or, you know, result in injury and stuff like that, so I just kind of see it as similar to exercising, I guess." - P22(NT-MP) "when I know I've sang well, or I've practiced well, I don't necessarily feel vocal fatigue" - P8(NT-M) "The whole day, and then recording at night, and doing, like, maybe 15 takes of the same songs, trying to make it perfect" - P49(NT-S/G) "I see it all the time. Particularly after a writing session, we'll finish the day recording, and we've been writing and singing all day long, and then we record at the end, so there's a lot of vocal fatigue at the end." - P58(FG1-MP) "so it had to be proper rock, belt, and fall, and, you know, doing that take, God knows how many times" - P12(Q-M) "I think vocal fatigue comes from outside, third-party things, not necessarily through singing." - P8(NT-M) "straining for notes that I can normally hit without a problem." - P20(NT-M) "If I've got a crowd that are enjoying it, I tend to give it more than I should." - P20(NT-M) "Especially if they've traveled far, they might book, like, a really long session and try to do loads in one day, and then towards the end of it, like, they're not getting the best version of themselves" - P2(NT-MP) "But a number of people, obviously, they don't want to overwork it too hard before they get there. I'd rather people came in underworked than overworked. I have had people come in that way overworked it in the morning. And then they come for a 4-hour session, and they're just, you know, it's already overcooked." - P48(NT-MP) "avoid meeting with people who are unwell" - P23(Q-M) (in response to prevention strategies)	1. Vocal Fatigue Amidst the Pressures and Demands of Professional Voice Users	SEE ABOVE
Reactive management rather than prevention of vocal fatigue	3 x MTP 4 x M 3 x SG 2 x MP 1 x MD	- C80 - Reactive management of vocal fatigue over prevention - C102 - Vocal fatigue recognised when it's occurred - C183 - Prevention prioritised after a problem has occurred - C243 - Limited prevention strategies - C141 - Anticipation prevention prior to upcoming engagements	"I think just relief, I think just the solution rather than prevention." - P31(NT-S/G) "if I'm not preparing for anything like a show or, like, anything like that and it happens, then I'll prioritise recovery." - P49(NT-S/G) "I would say there's a vast majority, let's say 50% of people deal with it when it happens." - P36(NT-MD) "I think, I think human mentality in a lot of areas of life is more like consequential than it is preventative and I think that is just because of how busy we are" - P8(NT-M) "taking ages to kind of go to therapy for, like, mental health issues, like, we leave it for the last second because we think we can manage it on our own, or kind of, like, you know... Staying in an environment as long as possible, like a job, like if it really sucks, we stay there as long as possible. And then when it's really bad, we go, okay, now we need to leave. And I think that obviously translates into like music and singing and voice work and all of these things too." - P8(NT-M) "Oh, they don't prevent it. There is no way" - as a guitar player, I might tape up a finger, or, you know, whatever it is to get through a show, wear a shoulder brace, whatever it happens to be, if they've injured themselves on tour or whatever. Vocalists pretty much... I mean, the people that know, and have done it before, and have had been through that, they will prepare a lot better, and they will keep their voice fit, and trained, and healthy, and all those sort of things. The majority do not do that. The majority are focusing on next show, next song, next song, right, let's keep doing that stuff. And it is a case of, okay, I'm at the point where I need to do something about it." - P48(NT-MP) "I would say most people don't do preventatively unless something has happened to them." - P38(NT-MD) "Blank questionnaire responses when asked to share prevention strategies (after being asked management strategies"	4. Moving from Reactive Management to Prevention of Vocal Fatigue	SEE ABOVE
Understanding and comparing vocal fatigue to physical experiences	3 x MTP 3 x M 4 x SG 3 x MP 4 x MD	- C168 - effect of movement on singing - C246 - Vocal fatigue reflected in physicality - C287 - Comparison of physical and mental health to vocal fatigue and dance fatigue - C29 - Effect of dance and singing simultaneously on vocal fatigue - C30 - Relationship between physical and vocal fatigue - C31 - Physical fatigue then leading to illness - C84 - Normalising vocal health the same way as physical health - C86 - Vocal fatigue causing physical tension - C106 - Difference between injury in dance and the voice - C188 - Comparison of vocal fatigue to muscular fatigue/fitness - C221 - Voice compared to an athletic instrument/ voice users compared to athletes - C339 - Physical exercise to support vocal fatigue	"Why are we even talking about the fact that you can sing normally here? Because you can never release your stomach." - P36(NT-MD) "you can see it in the body language, like a lot of the time" - P48(NT-MP) "And the fatigue usually comes from all-over body fatigue, because they're just exhausted." - P21(FG1-MD) "I think it's the same idea as, like, mental and physical health. physical health is... everyone knows the exact steps, to do, but then mental health is a bit more like, do you just... like, it's a bit more open, and I think it's kind of relateable to the same boat in vocal fatigue and dance fatigue." - P4(FG2-S/G) "It's stress within the body." - P8(NT-M) "No, because I feel like in dance, we know that injuries do quite, like, it's... we... I feel like they're more talked about, and obviously, we have to do a lot of prevention on it, but we know that things can happen, especially, like, partner work and stuff, so, like, when I have a dance one, I'm like, oh, no, it's normal, I'm not embarrassed." - C31 "People do go on dance rest or they have an injury and I feel like that's more of a, more commonly used term rather than having, like, referring to it specifically as vocal fatigue." - P28(FG2-S/G) "if I'd have, you know, rolled my ankle, or pulled a muscle in my back, or dislodged something, they would have given me those two weeks to recover." - P41(FG2-MTP) "like, say you're doing bicep curls, and your arms get tired, and then you can't do the bicep curls as well. I imagine it's a similar thing." - P2(NT-MP) "A bodily, almost like an athletic element, I can consider it a lot of like sport, kind of like it's the muscle, the training side of it." - P48(NT-MP) "fatiguing a muscle. The more you exercise it the more tired it gets and the less function you get out of it." - P2(Q-MP) "My understanding of vocal fatigue is how I understand any muscle fatigue that you might find in sports, often arising through over use of muscles or consistent poor technique / strain." - P44(Q-MD) "I kind of see myself as like an athlete with my voice in the way if an athlete has an injury or kind of they've got really tight muscles, do they just sleep and rest and hope for the best, or are they getting, like, stretched out properly? Are they using foam rollers? Are they, like, doing all of these things? I think it's the same with the voice." - P8(NT-M) "I think the thing that we forget is that, like, and this always blows my mind about vocals, is that it's literally like a body thing, isn't it? It's like, it's not quite the same as sort of playing a piano or... playing an electric guitar, I mean, it literally is like a muscle, and so it sort of feels like it's... there's a way more... there's so much more of a physically with it." - P58(FG1-MP)	2. The Multifaceted Experience and Perception of Vocal Fatigue Among Professional Voice Users and Their Collaborators	SEE ABOVE
Compensatory responses to vocal difficulty	3 x MTP 3 x MP 4 x M 3 x MD 1 x SG	- C22 - Pushing through vocal difficulties - C21 - Adrenaline takes over - C158 - Compensatory effort during vocal fatigue - C157 - psychological drive to compensate for vocal fatigue - C32 - Too much vocal effort - C335 - Reduce vocal effort when feeling fatigued	"Probably pushing through where I shouldn't push through." - P27(NT-MTP) "I know even if my voice is suffering a little, I can get through it." - P20(NT-M) "adrenaline takes over and it does come out." - P27(NT-MTP) "I find this really interesting because I'm like, oh, wow, like you're tired. Why are you trying even more?" - P36(NT-MD) "You must try harder, but they don't know where the harder is." - P36(NT-MD) "straining for notes that I can normally hit without a problem." - P20(NT-M) "If I've got a crowd that are enjoying it, I tend to give it more than I should." - P20(NT-M)	4. Moving from Reactive Management to Prevention of Vocal Fatigue	SEE ABOVE

Second Cycle Category	Participants/ Roles	Codes Included	Selected Quotes	Theme	Sub themes
Emotional experiences of professional and social pressures surrounding vocal fatigue	7 x MTP 6 x M 6 x S/G 2 x MP 2 x MD	- C25 - Feeling obligated to perform - C27 - Don't want to let the company down - C41 - Pressure of being a swing - C63 - 'Show must go on' mentality - C67 - Cast members offliness creates extra pressure - C68 - Pressure to push through - C70 - Feeling of guilt towards collaborators/peers/co-workers surrounding vocal fatigue - C97 - Potential judgement due to vocal fatigue - C103 - Fear of judgement when seeking support - C132 - Fear of perception of laziness - C288 - Fear of being viewed as difficult - C330 - Pressure for performers to always be 'full out' - C337 - Pressure to create loud sound - C45 - Pressure of timescales - C274 - Lack of understanding around vocal fatigue from professional collaborators - C299 - Lack of understanding from authoritative figures - C34 - High vocal expectation - C5 - Preparation dependant on role - C12 - Combined vocal demand - C39 - Stylistic vocal demands - C43 - Expectation of knowledge around vocal hygiene - C69 - Balancing resilience and health - C131 - The need to justify vocal limitations - C142 - Heir-achy of roles within a company - C143 - Hesitancy to confirm taking time off for vocal fatigue - C206 - Performers reluctant to use tactics as resources to aid them - C346 - Comfortable discussing with collaborators	"Then there's, like, the anxiety and fear. I think, that you put on yourself to return to work, which, in turn, your acid reflux increases, everything closes up, your muscles are more tense" - P41(F/G2-MTP) "I felt like I had to do it, because otherwise we'd be on, like, an emergency cover to do it" - P27(NT-MTP) "I was a swing on that show, which then I was primarily there to save the ensemble" - P27(NT-MTP) "essentially we're there to save the day" - P27(NT-MTP) "I was singing from bass to soprano lines" - P9(NT-MTP) "Show must go on" - P27(NT-MTP) "Obviously, if any other people are off, we will have to cancel the show. It's it's that kind of please push through where you can." - P27(NT-MTP) "I think there is a lot of pressure in the industry that when you're feeling vocal fatigue to return to the job as quickly as possible before you're ready and because there is a lack of understanding, a lack of knowledge, lack of training, and lack of empathy to be honest about what it is that a singer is dealing with when they've got vocal fatigue" - P41(F/G2-MTP) "We are told to keep pushing as our training time is so valuable" - P35(Q-S/G) "I sometimes feel guilty for not being fully on voice. I don't want to affect others in the process or in the work" - P28(Q-S/G) "I had singing teachers in the room" - P31(NT-S/G) "Oh, I'm feeling a bit tired, so I can't go as full out it would be loaded with judgment and frustration and it's like there was not a pressure but like the expectation put on to me" - P28(F/G2-S/G) "No one ever wants to be seen as unreliable - this is immediately how a singer feels when they're fatigued" - P18(Q-M) "I don't really like going to them because I think they'll judge me." "They've made other people have comments, like they've commented on other people and said, well, you know, like they're just not ready then" - P31(NT-S/G) "Awkward as I feel MD's might deem it as a lack of technique or bad training" - P13(Q-MTP) "I wouldn't want to be like causing a problem or, affecting the show or the rehearsal process." - P28(F/G2-S/G) "I feel that sometimes singers can be labeled 'divas' for complaining about their voices" - P33(Q-M) "They want it loud" - P27(NT-MTP) "punch it out, fire it out, like, find that big sound" - P27(NT-MTP) "you wouldn't get help that in a rehearsal room because obviously it's got to be quick. You've got to get through all the material. You've got to get going and you've got to get, get it right. So it could be that you're doing it really unsafely" - P27(NT-MTP) "like having like a day's notice to learn a song" - P49(NT-S/G) "Look, you're under savage time pressure. If everyone's new, you've put that into your schedule. Because if everybody's new and this is the first time, it's in your schedule to talk about it. It's in your, guys, and we have to have 10 minutes on the top of this to talk about in ear's Because everybody's first time in them." - P36(NT-MD) "There are times where we sort of find out when they're here, like in the studio, and then it's almost like a little bit too late. You're sort of a little bit like, well, I don't know what to do now because we've got this project to deliver at like three o'clock and can't really sort of say to the client, sorry, the vocalist needs to take a week and a half off. Like our schedules are nuts." - P58(F/G1-MP) "I was trying to say that I... I can't go on, and they were like you have to... you seem... it seems like you are well enough, kind of thing. And, I did, and then I had to go off mid-show." - P9(NT-MTP) "I feel comfortable in expressing myself, but it usually means I have to fight for what I want or need and sometimes being put in a position of having to work through even when I know I shouldn't to not damage my voice further" - P9(Q-MTP) "lack of empathy to be honest about what it is that a singer is dealing with when they've got vocal fatigue, I think there's a lot of pressures from not only like people creatively, but people, like, higher up in, like, production offices, who never meet you, never see you, don't understand the voice at all" - P41(F/G2-MTP) "Dependent if I was on for a cover or not" - P27(NT-MTP) "a lot of the singers I work with aren't really, like, trained classically, so they're a bit more rock and roll." - P30(F/G1-MP) "sustained use of register extremes, use of unfamiliar techniques" - P18(Q-MD) "we're not really told, like, I suppose, like, on jobs that you're not really told, oh, make sure that you're steaming, doing this, it's just expected that you should know" - P27(NT-MTP) "like, if I was in the ensemble, I would probably power through it, because obviously you've got, like, an array of voices to support you" - P49(NT-S/G) "Because, obviously, like, there's a certain... like, it's also, like, lifestyle and payment at the end of the day, so you can't just keep having shows off if your voice can't sustain, like, the performances, like, this is what we've done as a career, and, like, we have to try and... do it" - P49(NT-S/G) "We specifically record sick tracks in case anyone's voice isn't up to it on any given show. But it's amazing to see how much people will try to push through to avoid using something that's seen as a crutch, even though it's designed to be there for this" - P18(F/G1-MD)	3. The Role and Impact of Collaborators in Supporting Professional Voice Users Around Vocal Fatigue	SEE ABOVE
Approaches to discussing and seeking guidance around vocal fatigue	4 x MTP 4 x M 4 x S/G 2 x MP 3 x MD	- C64 - Generational differences / Impact of age - C98 - Culture of disguising illness in training - C151 - Hard to break older generation performers out of habits - C158 - Older/more experienced performers are better at advocating for themselves - C94 - Fatigue is a taboo subject - C161 - Stigma around vocal health and fatigue - C267 - Lack of close communication with other singers surrounding vocal health - C348 - Unconfident with communication surrounding vocal fatigue - C347 - Importance of honesty surrounding vocal fatigue	"I do feel like the younger generation coming through are a little bit more inclined to say I can't do the show" - P27(NT-MTP) "I have found that the young grads, they are afraid of their voices not being at peak performance. And not necessarily because they think that there's something wrong with them, but it's like, oh, if I can't sing really well, what if you take me off the show?" - P36(NT-MD) "as a young person or as a fresh grad, you don't know what those boundaries are" - P36(NT-MD) "I've changed as I've grown older, because I don't... I don't know, like, I don't really have the time to be like, okay, I've lost my voice, or what am I going to do now?" - P9(NT-M) "Yeah, it's something over the years that I've learned to feel comfortable with. I think in the beginning, like in drama school and in my early career, no. But now, like eight, nine years in, I'm like, I know my voice really well, I think" - P9(NT-MTP) "I feel a bit like, oh, I can't just go making... like, a big fuss, because I'm the new guy." - P4(F/G2-S/G) "Teaching children / young performers not to push." - P57(Q-MD) "my frustration comes with watching younger performers who fear getting ridiculed, or older performers who have the mentality the show must go on. There is of course always the concern that employers will see you as not up to it or incapable if you get vocal fatigue." - P41(Q-MTP) "don't tell anyone, like, if you're unwell or anything" - P31(NT-S/G) "my first thing that I generally, especially with younger cast is that they just are pushing a lot" - P36(NT-MD) "More experienced performers, they'll tell me I'm not gonna do an opt-up, or they'll be like, I'm gonna relax on the... on something, like, I'm feeling tired" - P36(NT-MD) "Three years ago I would have had the ego to be like oh I've got to say that in the original key gotta do this gotta do that yeah I'm like I don't care now. If it sounds good, it sounds good. It's gonna go down a couple of keys. It's fine." - P46(Q-M) "I have no problem telling a musical director that I am feeling tired or overworked. I say that now with 8 years of working experience but I wouldn't have had that confidence when I left drama school" - P17(Q-MTP) "No one really talks about it." - P31(NT-S/G) "There's still such a warped view on vocal health." - P36(NT-MD) "In drama school, I think it's way more taboo, like, the idea of vocal fatigue and..." - P4(F/G2-S/G) "I don't know, I don't, I don't really speak to many other singers on this sort of level, you know?" "It's always, yeah, gig was fine, yeah, great, mate, yeah. You're talking about the crowd rather than how you performed" - P20(NT-M)	3. The Role and Impact of Collaborators in Supporting Professional Voice Users Around Vocal Fatigue	SEE ABOVE
The role of training in vocal fatigue	3 x MTP 2 x M 5 x S/G 1 x MP 2 x MD	- C81 - Importance of vocal fatigue education within training - C85 - Vocal training demands - C98 - Culture of disguising illness in training - C101 - Inconsistent effectiveness of taught strategies - C105 - Shame of vocal fatigue badges/signs within training - C107 - Need for preventative education within training - C87 - Fluctuation of contact singing time within training - C116 - Suggestion that guide would be useful at the start of training to develop prevention - C113 - Inconsistent vocal technique guidance within training - C134 - Contradiction between advice of staff and their own behaviour - C135 - Lack of credibility surrounding advice - C145 - Frequent repetition of existing knowledge - C297 - Vocal health misconceptions taught through training and professional environments - C231 - Generational divide in vocal education - C243 - Training isn't individualised and strategies are generic - C94 - Fatigue is a taboo subject - C112 - Following voice care practices without understanding - C144 - Limited exposure to vocal health education - C124 - Transition from training into performance demands - C263 - More regular check ins surrounding vocal fatigue in training - C310 - Differences between music and musical theatre vocal training	"I think 100% for kids students coming through that want to go into this industry, I think it's a perfect, like, here's a guide, these are the types of things that you should be doing now" - P27(NT-MTP) "three singing lessons a week and one harmony class" - P31(NT-S/G) "don't tell anyone, like, if you're unwell or anything" - P31(NT-S/G) "It's like a sign saying that I'm not okay, I don't like it, Oh look, I've got something wrong with me" - P31(NT-S/G) "I would like to learn more about prevention rather than the solution, because I think, especially at [dance college], we just got taught, like, how to solve it, and sometimes... people will just stay quiet and push through it to the point where they end up really damaging their voices. Like, I know two people have actually deferred a year because of that reason." - P31(NT-S/G) "They try and implement guidance but when the teachers are also outside smoking it kind of contradicts itself, to be honest. Like you can't give advice to young people if you're not taking the advice yourself" - P49(NT-S/G) "It's like teachers are there, students are there, like, looking at each other, smoking cigarettes." - P49(NT-S/G) "haze, I think... like, scientifically, it doesn't actually... it's not meant to affect you... well, we were taught it was just water particles" - P4(F/G2-S/G) "of the dry ice conversation, I find it fascinating because even in the West End, they love to tell you that it doesn't affect your voice. And I'm like, no, it might not be causing vocal damage, by the chemicals that are in it, but it is dehydrating me, and it's making the show more difficult, and if I'm doing that at the top of a 3-hour show, where I haven't then got 2 hours to rehydrate my vocal folds, it's definitely a problem. And it's increasingly becoming more of a problem." - P41(F/G2-MTP) "There's a lot of teachers and practitioners that have been in the game for so long, and then the new up-and-comers aren't replacing them quick enough, or they aren't, kind of, like, the old timers aren't, like, working with the newcomers to find, like, new ways." - P6(NT-M) "No one really talks about it." - P31(NT-S/G) "Especially because we got taught, yeah, massage it, but I'm like, I actually don't know what I'm massaging, why I'm... I just know that apparently massage helps it." - P31(NT-S/G) "We had, like, one vocal health class, like literally like a 1 hour 15 minute vocal class over 3 years" - P49(NT-S/G)	3. The Role and Impact of Collaborators in Supporting Professional Voice Users Around Vocal Fatigue	SEE ABOVE
Social media influences on vocal health and fatigue	2 x M 1 x S/G 1 x MD	- C121 - Vocal health advice from celebrities who are not qualified - C122 - Incoherent information surrounding vocal health on social media - C124 - Prioritising information from successful performers - C125 - Limited visibility of combining factors to those discussing vocal health on social media - C146 - Power of postcard guidance - C225 - Fear around vocal injury due to celebrity publication	"famous performers say things that they don't really understand, like, on social media, which can lead to, like, misconceptions for, like, younger people and stuff that are, like, watching these, like, videos and, like, learning from them" - P49(NT-S/G) "I would watch these videos and think oh well she's doing that she's doing seven shows a week so what she's saying is correct even though you don't know that she's actually gone out on a night out after the shows are finished had about seven glasses of wine and some cigarettes and then she's complaining she's tired but you don't know that." - P49(NT-S/G) "there's a lot, there's a lot of scary stuff out there. I know it's sometimes around technique, but like the Sam Smiths or Adele's of the world in their early career" - P8(NT-M) "I always worry about you hear about professionals getting nodules and stuff" - P20(NT-M)	3. The Role and Impact of Collaborators in Supporting Professional Voice Users Around Vocal Fatigue	SEE ABOVE
				4. Moving from Reactive Management to Prevention of Vocal Fatigue	

Second Cycle Category	Participants/ Roles	Codes Included	Selected Quotes	Theme	Sub themes
Recognition and understanding of vocal fatigue	6 x MTP 6 x M 6 x S/G 6 x MP 4 x MD	- C108 - Accurate definition of vocal fatigue required - C114 - Limited awareness of relationship between vocal technique and fatigue - C128 - Vocal sirens as a fatigue indicator - C208 - Vocal fatigue described using other words - C187 - Recognition of vocal fatigue across different types of professional voice users - C194 - Sore throat OR vocal fatigue? - C214 - Multiple types of vocal fatigue - C215 - Vocal fatigue multifaceted condition - C216 - Scale of vocal fatigue - C217 - Musicians sometimes enjoy the vocal quality produced as the onset of vocal fatigue - C226 - "vocal fatigue is an umbrella term" - C234 - Importance of early identification of vocal fatigue - C259 - Understand symptoms before definition - C260 - Inconsistency between framing fatigue as a risk but also a tool? - C261 - Perception of using fatigue to enhance emotion (misconception) - C269 - Uncertainty when fatigue can become an injury - C270 - "vocal fatigue is always present somehow" - C280 - Simplified perceptions of vocal fatigue - C289 - Every voice is different - C295 - Different vocal qualities are impacted by vocal fatigue - C296 - Habitual vocal habitability to measure vocal fatigue - C308 - Desire to learn more around vocal fatigue and its causes - C322 - Muscles involved in voice production too tired to support sound - C323 - "vocal fatigue as a clinical diagnosis" - C324 - "Performing during vocal fatigue can lead to injury" - C350 - Greater knowledge required around how to detect vocal fatigue - C354 - Desire for greater knowledge surrounding all aspects of vocal fatigue - C355 - Individual experiences of vocal fatigue dependant on voice type	"I think people call it vocal fatigue but don't actually know what it is." - P31(INT-S/G) "I don't think I'd, until you, until you called it vocal fatigue, I don't think I'd really heard it called that before. Like, I definitely... like, I think it was... it was almost like giving it a name." "I think I've, you know, I've seen... I've seen people come in and they've... or, you know, had friends or colleagues that have been, kind of, ggggging lots and then come into the studio and, like, not been able to reach... the same, range, or the same sort of level of volume that they would normally be able to do, but I don't think I'd ever heard it... they didn't talk about it like that when they were here, like, from a professional vocal point of view, they didn't say, oh, I'm suffering from vocal fatigue." "so I think it's kind of almost like... feels like a positive... at least a positive step for me already, because I know what it's called." - P58(FG1-MP) "I've been taught that if you can do a siren, and, like, it's smooth and clean, like, you are fine. So, sometimes it's just a perception of how bad the focal fatigue is, and to know when you need to stop." - P49(INT-S/G) "It's kind of like burnout, like life burnout, but for the voice, it's kind of when you feel, you've used it too much, and you haven't looked after it." - P8(NT-M) "a lot of people say my voice is tired" - P30(FG1-MP) "just knackered" - P58(FG1-MP) "There is time based fatigue at the end of the session that is perhaps more a tired brain, that finds pitch harder. Then there is good old fashioned mental block, where something simple becomes unattainable." - P51(Q-MP) "mostly rappers. I guess a bit different to singers, but yeah, I guess they still get vocal fatigue." - P2(NT-MP) "I think usually people might be like, oh, I've got a bit of a sore throat today, so I don't know what I'm gonna be like, but I don't think they'd be like, oh, I'm vocally fatigued." - P2(NT-MP) "I'm going to say, a sore throat. It's more of a lightness." - P20(NT-M) "they just, like, bracket is just vocal fatigue, and it's just everything - do you think you could ever like pinpoint as to when you're feeling it" - P4(FG2-S/G) "there's also levels of like how bad the fatigue is." - P8(NT-M) "It's funny, because early stage is when it goes a little bit, kind of, like, creaky slash husky sound in my speech quality, like, I... sometimes it's quite nice to record on that, so I don't see that as a negative." - P8(NT-M) In vivo "There are times when fatigue can be used as a can be as much as it can be a negative" against "Because we know these things aren't very good... obviously the word fatigue is not great. No one does anything unless they know, right, if I smoke, I'm going to get cancer." - P48(NT-MP) "I think there are times when fatigue can be used as a can be a tool... if I know there's quite an emotional track, but it doesn't need to be a particularly strong vocal... I may well put that at the end of a session... And then, and then finish with something that's a little bit more fatiguing, or after that, for the emotional aspect. I think that's just always something to keep in mind, is that, it can be used as a tool." "There can also be a point in my world where a bit of fatigue can change a performance in a good way, if it suits the song. We're searching for emotion as the primary driver when singing, not technique. Technique supports the emotion. So it's not always a 'problem', but needs to be the right song, right moment. Sometimes explaining that alone, is a strategy." - P48(Q-MP) In vivo "I think they just put it down to, like, your voice is feeling a bit tired. But not actually understanding the implications of what that means." - P41(FG2-MTP) "people get it confused because I've had stuff where they think they've got the voices going and it's like they haven't actually just warmed up at all." - P30(FG1-MP) "It's really specific to the individual.... I think you have to spend a lot of time learning about your own voice." - P28(FG2-S/G) "I would like to understand more around the mechanics" - P30(Q-MP) "personally I would benefit from understanding what's going on biologically" - P21(Q-MD) "It cannot sustain a healthy sound as the muscles used to support the vocal folds are too tired." - P35(Q-S/G) "The muscles around the voice become tired and unable to maintain strong supported sound" - P42(Q-MTP) In vivo In vivo	2. The Multifaceted Experience and Perception of Vocal Fatigue Among Professional Voice Users and Their Collaborators	SEE ABOVE



What is Vocal Fatigue?

Vocal fatigue is a **reduction in the efficiency of voice production**, resulting in **increased effort required** to produce and sustain voice.



An evidence-informed guide to help identify, understand and manage vocal fatigue.

Developed by Kasia Howley
© 2026

Early recognition of vocal fatigue is paramount, and professional voice users should be self-aware and attentive to any minor changes in their voice.

Below is a simple step-by-step guide to help you identify and manage vocal fatigue.

Identify your symptoms

Assess the duration of your symptoms

Evaluate the impact of your symptoms

Consider potential causes

Implement targeted strategies



COMMON SYMPTOMS



Reduced control of the voice



Discomfort in the laryngeal, neck or clavicular region



Reduced overall vocal power



Increased vocal effort required to produce sound



Temporary loss of voice



Reduced vocal flexibility

Or any other change that doesn't feel right for **your** voice. Remember, every voice and experience is unique - trust your own awareness!

WHY DOES VOCAL FATIGUE HAPPEN?



Vocal fatigue can arise from a **range of causes**, shaped by the **underlying mechanisms involved in voice production**. It often develops through a combination of **external factors** and **internal physiological responses**.

Below are some potential causes:

HIGH VOCAL DEMAND

Prolonged periods of intense voice use can overwork the vocal mechanisms.

INEFFICIENT TECHNIQUE

Using technique that doesn't effectively support the vocal mechanisms.

CHALLENGING ENVIRONMENTS

Dry air, dusty environments or poor acoustics can also contribute to vocal fatigue.

SUBOPTIMAL VOCAL CARE

Lack of hydration, poor diet and lifestyle choices can all contribute to vocal fatigue.

INADEQUATE RECOVERY TIME

Without adequate rest, there is limited recovery time after intense voice use, increasing the risk of vocal fatigue.



A SCIENTIFIC MOMENT!

THE BIOPHYSIOLOGICAL MECHANISMS THAT UNDERPIN THE CONDITION

Neuromuscular Mechanism Fatigue

When the muscles used for voice production lack the ability to sustain the tension required to produce sound efficiently.

→ May present as a weak voice quality or tightness surrounding the laryngeal muscles.

Vocal Fold Cover Mechanism Fatigue

When the high frequency of vibrations alter the composition of the folds making vibration less efficient.

→ May present as reduced flexibility in the sound or a more effortful process.

Afferent Mechanism Fatigue

When the sensory signals between the laryngeal muscles and the brain become less accurate.

→ May alter your perception of vocal fatigue meaning the brain "feels" vocally fatigued before it becomes audible.

Metabolic Mechanism Fatigue

When the energy supply to the muscles involved in voice production is depleted faster than it can be restored, potentially leading to a build up of metabolic by-products.

→ May present as "heaviness" or lack of vocal control.

Central Neural Mechanism Fatigue

When the central nervous system becomes less efficient at coordinating the muscles involved in voice production.

→ May present as reduced control or stability of the sound.

HOW CAN I STOP THIS FROM HAPPENING?

Effective management of vocal fatigue combines prevention strategies with symptom-relief strategies. Every voice is different, so explore what works the best for you!

FUTURE PREVENTION

Healthy Vocal Habits



Care for your voice as you would care for your body. Maintain awareness of your **daily habits, lifestyle choices** and **consistent voice care practices**.



Vocal Technique

Efficient vocal technique helps manage high vocal demand and reduce the onset of vocal fatigue.

SYMPTOM RELIEF



Hydration and Humidification

Regular water intake should be part of your **daily routine** rather than a precautionary measure. **Steaming and nebulising** may support vocal stability and consistency when carried out correctly, paying attention to the correct **duration, temperature and technique**.

SOVT Exercises



Semi-occluded vocal tract exercises involve partially closing or narrowing the vocal tract (exercises such as **lip trills, tongue trills or straw-based work**). These can help to **enhance vocal efficiency** and **reduce phonation effort**.



Laryngeal Manual Therapy

A **contact-based treatment** targeting the laryngeal muscles and surrounding structures, conducted by a **trained professional**. This treatment can **reduce peri-laryngeal muscle tension** and **improve vocal flexibility**.

Voice Rest



Absolute voice rest requires **complete silence** and is typically prescribed following vocal fold surgery. **Relative voice rest** involves **reducing overall use**, while incorporating small amounts of gentle, controlled phonation, to encourage efficient voice use. **Voice rest gives the mechanisms involved in voice production a chance to recover**, helping to prevent further damage.

If you have questions about the approaches discussed above, please speak to a **qualified voice professional**. If your **voice symptoms persist for more than three weeks**, please seek professional assessment from a **voice specialist**.

Appendix M - Permission Letters

Hi |

Following on from our conversation earlier, I just wanted to send a brief email outlining what we discussed in more detail.

As I move into the final module of my Master’s degree (Vocal Pedagogy through the Voice Study Centre, UWTSU), the final study is a work-based learning project. Across the previous five modules, my focus has been on conducting research into the condition of vocal fatigue, specifically how it can be identified, its aetiology, how individuals can best support the condition within their own practice, and where gaps exist in current knowledge and research.

My Module 6 study is still in the early development stages; however, I would be extremely grateful for the opportunity and permission to invite EDA 2nd and 3rd year students to take part as potential participants. In short, I would like to invite students to complete questionnaire surrounding their awareness of vocal fatigue and their current management strategies. This may also potentially lead to a focus group or individual interview.

Below is more in depth outline of my proposed study so far, highlighting where the students may be involved, should this be approved:

- A literature review
- A questionnaire exploring how vocal fatigue is currently identified and managed. This will be distributed to a broad range of professional voice users, including musicians and professional musical theatre performers, using a snowball sampling approach. This will begin with clients from my private practice, followed by students currently in professional training (2nd and 3rd year), which is where I would like to also include EDA students, if possible. Finally, I'll be reaching out to other vocal coaches, MDs and music producers.
 - The questionnaire will request participants' name, email address, and job title/training status; however, all responses will be analysed anonymously. Training/professional status will be grouped, and individual workplaces or training institutions will not be disclosed beyond the initial form.
- A focus group/individual interview stage. At the end of the questionnaire participants may opt in or out of this stage. Participants will then be randomly selected within their professional groups to ensure even representation across populations. This means that if EDA students are approved to participate, some may be selected, however it is also possible that none would be.
- Focus group/interview participants will be shown an education guide that I have previously created which breaks down the condition of vocal fatigue, its subtypes, key contributing factors and mitigation strategies. They will then be asked similar questions to those in the initial questionnaire to assess the effectiveness of the resource and identify any development in knowledge or awareness. Suggestions will then be gathered for further development of the guide.
- Finally, all data will be analysed, completely anonymously and used solely for my final report.

Please let me know if you need any further information or clarification at this stage. I'd be more than happy to discuss the project further and answer any questions!

I would be extremely grateful for the opportunity to extend this project to the EDA students, however I completely understand if this isn't possible.

Thanks so much for your time and consideration.

Best Wishes,

Kasia Howley

Singing Technique Tutor

Pronouns: She, Her, Hers

To:  Kasia Howley | Emil Dale Academy

 Reply  Reply all  Forward  

Tue 13/01/2026 14:56

Hi Kasia,

Thanks for sending through all of this information.

We are happy to help to support with your final Masters module in this way!
Let's discuss how best to share information on this when we get a chance.

Kind regards,
Matt

Head of Music

Pronouns: He, Him, His

| Email Address: mattmellor@emildale.co.uk

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PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL

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Student Number 2317730



7th January 2026

Dear UWTSD,

I confirm that I approve of the research titled ***“Perceptions and Practices Surrounding Vocal Fatigue Among Professional Voice Users and Their Collaborators: An Exploratory Study Informed by an Educational Guide”***, to be conducted by Kasia Howley of Kasia Howley Vocal Coaching as part of Module 6 of the Masters Degree in Vocal Pedagogy, taking place between January 2026 and October 2026.

Kind Regards,

Kasia Howley

A handwritten signature in black ink, appearing to read 'Kasia Howley', with a horizontal line underneath.