

Laura Newton-Harris
Student Number: 2319576
Module 6 – BMPF7329D

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**Participatory exploration, evaluation and pedagogical refinement
of a prototype inclusive digital voice training application
designed to support sustainable, identity-affirming vocal practice
for trans and non-binary actors**

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Project Proposal

Participatory exploration, evaluation and pedagogical refinement of a prototype inclusive digital voice training application designed to support sustainable, identity-affirming vocal practice for trans and non-binary actors

Context of the Work and Positioning

The development of inclusive and ethically grounded voice pedagogy for trans and non-binary (TGNB) performers remains an emergent and critically necessary area within contemporary actor training. While recent scholarship has challenged the historical dominance of cisnormative and binary models of vocal development (Ragan, 2018; Azul & Quoresimo, 2022; Azul, 2022), there remains limited applied research examining how such frameworks function when translated into practical, accessible training tools. Much of the existing literature articulates principles of autonomy, embodiment and culturally responsive practice; however, the operationalisation of these principles within digital, self-directed environments remains under-explored.

Module 5 of this programme established the theoretical and methodological foundations for a prototype mobile voice training application grounded in inclusive pedagogy and the ASSEMBLE framework (Azul & Quoresimo, 2022). That phase adopted a practice-led, literature-driven methodology, operationalising inclusive principles into structured digital flows, microcopy, safety frameworks and exercise packs. Participant engagement was intentionally deferred. Consequently, while the prototype demonstrates theoretical coherence and ethical alignment, it remains empirically untested within lived performance contexts.

This proposed study represents Phase Two of the research trajectory. It will move beyond heuristic modelling towards participatory engagement, examining how the prototype is

experienced, interpreted and critically appraised by TGNB actors. The project will situate itself at the intersection of inclusive voice pedagogy, digital learning design, and participatory practitioner research, extending the inquiry from conceptual design to embodied, dialogic evaluation.

Justification

Despite significant advances in inclusive voice pedagogy, a persistent gap remains between theoretical articulation and lived application. Digital Voice and Communication Modification Training (VCMT) resources predominantly operate within clinical or outcome-oriented paradigms, often privileging measurable target achievement over exploratory, identity-sensitive and performance-focused practice (Alter et al., 2024). Within actor training contexts, accessible, non-clinical digital resources that centre autonomy, sustainability and embodied meaning-making remain scarce.

Furthermore, research into TGNB voice work has largely focused on acoustic-perceptual factors, pitch modification and listener perception, with comparatively limited attention given to sustainable expressive practice within professional performance environments. Voice, as both embodied and socially situated, cannot be understood solely through acoustic metrics; it is shaped by identity, affect, fatigue, creative demand and relational context. Pedagogical integrity therefore cannot be assumed through theoretical alignment alone. It must be examined through lived engagement.

This study is justified on three interrelated grounds:

1. It will critically examine whether inclusive pedagogical principles remain intact when translated into digital, self-directed environments.
2. It will generate participatory insight into how TGNB actors experience structured digital voice training outside clinical frameworks.
3. It will produce iterative pedagogical refinement grounded in participant experience, thereby strengthening both theoretical coherence and practical applicability.

By foregrounding refinement rather than validation, the study will position pedagogy as dialogic, responsive and ethically accountable rather than fixed or prescriptive. This aligns with constructivist epistemology and with culturally responsive pedagogical commitments to co-construction and reflexivity.

Intended Impact

This research intends to contribute to three interconnected domains: voice pedagogy, digital arts education, and inclusive performance practice.

First, it will extend scholarship on inclusive voice pedagogy by examining how frameworks such as ASSEMBLE function in applied, self-directed contexts. Rather than merely endorsing inclusive principles, the study will interrogate their translation into practice.

Second, it will offer a model for participatory pedagogical refinement within digital creative training. By documenting iterative development informed by participant dialogue, the research will demonstrate how practitioner-designed artefacts may evolve through collaborative engagement.

Third, it will centre TGNB actors' experiences of sustainability, agency and identity affirmation within structured voice development. In doing so, it will contribute to broader conversations about ethical responsibility, embodied autonomy and sustainable creative practice.

In the longer term, findings may inform curriculum development in drama schools, independent coaching methodologies, and future iterations of digital voice resources that integrate trauma-informed and culturally responsive pedagogies.

Outlined Intention

This study will adopt a constructivist qualitative research paradigm, recognising knowledge as co-constructed through lived experience and reflective dialogue. The methodological orientation will combine participatory design research with reflexive thematic analysis, situating the artefact as both object and site of inquiry.

A purposive sample of 6–8 trans and non-binary actors will be recruited. Inclusion criteria will include active engagement in performance contexts and interest in voice development. A mixed cohort of participants known to the researcher and those recruited beyond immediate networks will be included in order to balance relational trust with critical distance.

The research will unfold across three structured phases:

Phase 1 – Pre-Engagement Interviews

Semi-structured interviews will explore participants' prior experiences of voice training, perceptions of sustainability, relationships to digital learning tools, and expectations of inclusive pedagogical practice.

Phase 2 – Prototype Engagement Period

Participants will engage with the prototype application over a defined period (approximately 2–3 weeks), using structured session pathways while retaining autonomy in pacing. Optional reflective journalling will be encouraged.

Phase 3 – Post-Engagement Interviews

Follow-up interviews will explore experiences of usability, emotional safety, pedagogical clarity, identity alignment, expressive capacity and perceived sustainability. Particular attention will be paid to identifying tensions, blind spots and areas requiring refinement.

Data will be analysed using reflexive thematic analysis (Braun & Clarke, 2021). Analysis will attend to patterned meaning across participants while preserving individual nuance. Emerging themes will inform documented pedagogical refinement of content, sequencing and microcopy. Iterative adjustments will be critically evaluated against inclusive pedagogical principles, ensuring that refinement remains theoretically anchored.

Expected Learning Outcomes

Through undertaking this research, I expect to:

1. Develop advanced expertise in participatory and design-based research within voice pedagogy.

2. Strengthen reflexive awareness of insider positionality and its epistemological implications.
3. Critically interrogate the translation of inclusive pedagogical theory into applied digital environments.
4. Refine methodological competence in qualitative interviewing, thematic analysis and iterative artefact development.
5. Extend professional practice through ethically grounded, collaborative pedagogical innovation.

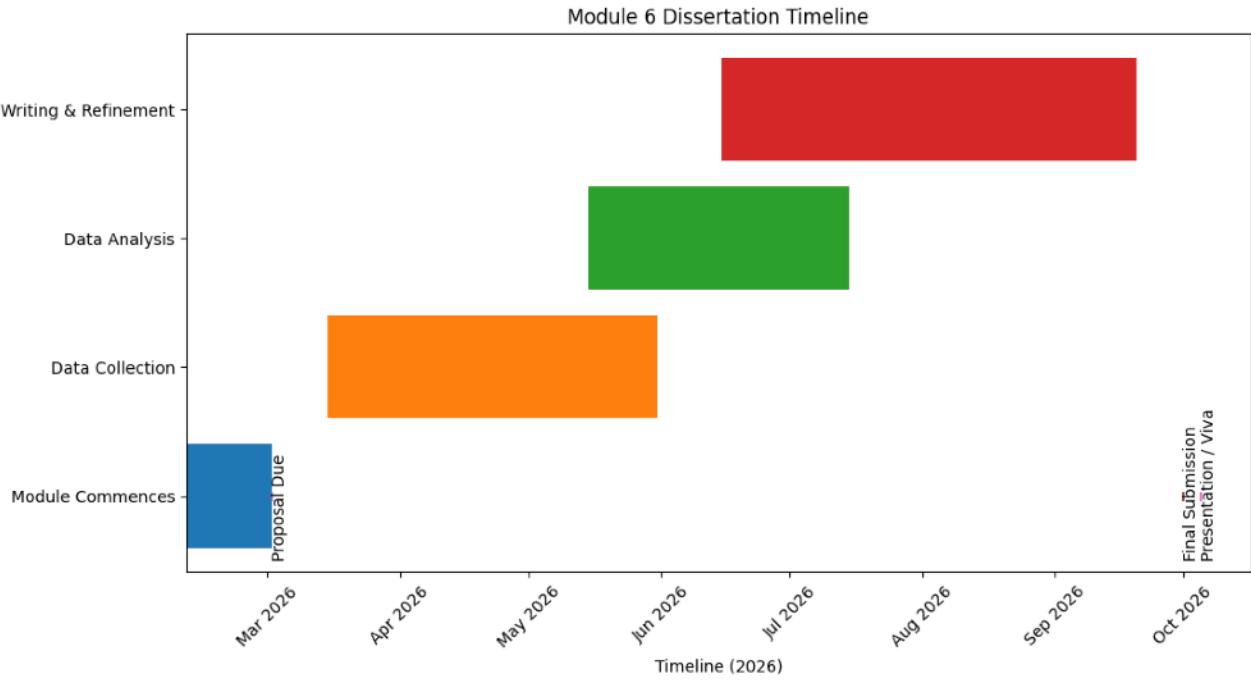
Ethics and Insider Research Considerations

Ethical approval will be secured prior to commencement.

As both designer of the prototype and a practising voice coach, insider research considerations are central. The inclusion of both known and previously unknown participants will mitigate echo-chamber effects while maintaining relational trust. Clear boundaries will be established between research and coaching roles. Participants will be explicitly informed that critique is welcomed and that withdrawal may occur at any stage without consequence.

Potential risks include emotional discomfort arising from vocal exploration or reflection. Mitigation strategies will include explicit safety guidance within the application, participant autonomy to pause or discontinue engagement, trauma-informed interview facilitation, and signposting to relevant support services where necessary.

Data will be anonymised, securely stored and managed in accordance with UWTSD institutional policy. Reflexive journalling will be maintained throughout to critically examine interpretive bias, relational dynamics and power structures embedded within the research process.



Laura Newton-Harris
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Project Report

Participatory exploration, evaluation and pedagogical refinement of a prototype inclusive digital voice training application designed to support sustainable, identity-affirming vocal practice for trans and non-binary actors

Introduction

Digital technologies are increasingly influencing the ways in which performers access voice training, creating new opportunities for flexible, independent and geographically accessible learning. At the same time, concerns remain regarding the extent to which many existing digital resources adequately support the diverse needs, identities and lived experiences of transgender and non-binary performers. While technological innovation has expanded access to voice training, comparatively little research has examined how inclusive digital voice pedagogy should be designed, experienced and refined through direct engagement with the communities it seeks to support.

The present study builds directly upon the preceding practice-based investigation undertaken in Module 5. That earlier project focused on the conceptual design and development of a prototype digital voice-training application intended to support sustainable, identity-affirming vocal practice for transgender and non-binary actors. Drawing upon contemporary literature in voice pedagogy, gender-affirming voice practice, digital learning, culturally responsive education and evidence-informed pedagogical design, the prototype established a theoretical framework for inclusive digital voice pedagogy. Particular attention was given to participant autonomy, sustainable vocal practice, ethical digital design and performer-centred learning. The outcome of Module 5 was therefore not a completed educational product, but a theoretically informed prototype

idea designed to provide the foundation for participant-informed practitioner research and iterative pedagogical refinement.

This subsequent study represents the next stage of that developmental process. Rather than seeking to determine whether the prototype 'worked' in any absolute sense, the research investigated how transgender and non-binary performers experienced engaging with it in practice. Participant experience therefore became the primary source of inquiry, enabling the study to move beyond theoretical design towards the lived realities of inclusive digital voice pedagogy.

The study was guided by the following research question:

How can participant experience inform the iterative development of an ethical, inclusive and sustainable digital voice pedagogy for transgender and non-binary actors?

In addressing this question, the project adopted a qualitative practitioner-research methodology grounded in reflexive thematic analysis (Braun & Clarke, 2021). Participant engagement unfolded across three interconnected phases. Initial interviews explored participants' previous experiences of voice work, digital learning and gender-affirming vocal practice. Participants then engaged with the prototype over a two-to-three-week period, followed by post-engagement interviews exploring their experiences of usability, performer relevance, psychological safety, identity alignment and sustainability. Throughout the study, findings informed iterative prototype refinement while remaining situated within wider theoretical discussions of inclusive voice pedagogy.

Importantly, the project did not position participants as evaluators of a finished product. Instead, participants became active contributors to an ongoing process of pedagogical development. Their experiences informed successive refinements to both the prototype and the underlying pedagogical framework, reflecting an iterative relationship between design, practice and reflection. In this respect, the research aligns with practitioner-research traditions in which knowledge emerges through cycles of action, reflection and refinement rather than through linear evaluation alone.

The significance of the study therefore extends beyond the development of a single prototype application. Through systematic analysis of participant experience, the research

sought to identify broader pedagogical principles capable of informing future approaches to inclusive digital voice pedagogy. In doing so, it contributes to growing discussions surrounding culturally responsive voice practice, ethical digital learning and participant-informed educational design, while also demonstrating a transparent and repeatable methodology through which participant experience can be transformed into pedagogical refinement.

The report is structured as follows. Beyond this introduction, the literature review establishes the theoretical context underpinning the study, drawing together scholarship relating to transgender and non-binary voice pedagogy, digital learning, inclusive educational practice and practitioner research. The methodology chapter outlines the research paradigm, methods and ethical considerations, together with the analytical process employed throughout the investigation. The findings chapter presents the principal themes generated through reflexive thematic analysis, before the discussion considers how these themes collectively articulate five participant-informed pedagogical principles for inclusive digital voice pedagogy. The report concludes by reflecting upon the study's contribution to knowledge, its limitations and future directions for research and practice.

Literature Review

Voice, Gender, Identity and Authenticity

Voice is simultaneously physiological, acoustic, embodied, communicative and socially interpreted. Within transgender and non-binary (TGNB) voice scholarship, this multidimensionality complicates approaches that understand vocal development principally through measurable acoustic characteristics or externally perceived gender. Fundamental frequency (f_0) remains a significant perceptual cue; however, research on formant frequencies, vowel configuration, articulation, and phonation shows that gender perception emerges through interacting, vowel-dependent acoustic features rather than pitch alone. Gallena, Stickels and Stickels (2018) illustrate this directly: even when f_0 was experimentally fixed at a gender-ambiguous frequency, listener perception of a voice as 'not-male' required substantial, often whole-envelope, shifts in formant frequency for close vowels such as /i/ and /u/, whereas open vowels such as /ɑ/ and /æ/ shifted toward 'not-male' ratings with comparatively minor, and in some conditions single-formant, manipulation.

Gender perception is therefore not simply multi-cue but differentially sensitive to phonetic context, complicating any assumption that a uniform vocal adjustment will produce a uniform perceptual outcome. Houle and Levi (2021) extend this complication further by demonstrating that formant information alone, entirely independent of pitch, is sufficient to generate graded gender judgements: in whispered speech, where fundamental frequency is absent altogether, listeners continued to rate voices along a feminine–masculine continuum on the basis of formant structure, with front vowels bearing higher second formant (F2) values consistently rated as more feminine than back vowels. Together, these findings caution against treating any single acoustic parameter, including pitch, as either necessary or sufficient for gendered vocal perception. The existing evidence therefore establishes the value of acoustic-perceptual research while simultaneously demonstrating the limitations of treating voice as an acoustic object alone.

These limitations become particularly significant where voice intersects with identity. Quinn, Oates and Dacakis (2023) demonstrate that voice training can be experienced very differently across trans and gender-diverse participants, with intensive approaches offering valued progress for some while contributing to overload or emotional strain for others. Their work also foregrounds the potential psychological significance of perceived incongruence between voice and an individual's gender or presentation goals. Voice development therefore occurs not simply within the vocal mechanism but within an embodied and socially situated relationship between self-perception, listener perception, context and individual aspiration.

The concept of authenticity is consequently important but requires caution. Ahmed, Kim and Hoffmann's (2022) examination of 'authenticity and authority' within transgender voice-training applications is particularly pertinent because it highlights the relationship between digital technologies, ideas of authentic voice, and the authority through which vocal change is framed. Authenticity may represent a valuable self-determined aspiration, but it risks becoming another normative endpoint if a practitioner, training system or application implicitly determines what an 'authentic' transgender or non-binary voice should sound like.

This tension suggests that authenticity is more usefully approached in the present study as a participant-defined and potentially evolving concept than as an objectively identifiable vocal state. Such an approach does not assume that authenticity is universally

meaningful, stable or even desirable as terminology. Instead, it allows participants to articulate whether and how authenticity relates to their own vocal experience. This distinction is important because an ostensibly affirming pedagogy could reproduce precisely the normativity it seeks to resist if it replaces externally prescribed femininity or masculinity with an equally prescribed notion of 'authentic voice'.

Contemporary gender-diverse voice pedagogy increasingly responds to such complexity by challenging binary and pathologising approaches. Azul and Quoresimo's (2022) ASSEMBLE framework conceptualises voice through seven interconnected domains: *Agency, Safety, Strategy, Embodiment, Meaning-Making, Biocultural Context* and *Listening*. Rather than positioning vocal goals as fixed outcomes, the framework emphasises user-led discovery, reflective noticing and contextual decision-making.

Azul et al. (2022) similarly advocate culturally responsive, person-centred practice that recognises the interaction of biological, cultural, social and individual forces. Voice within these approaches becomes relational and dynamic rather than something requiring alignment with a predetermined gendered norm.

This development should not, however, be constructed as a simple opposition between an outdated clinical tradition and an enlightened inclusive pedagogy. Clinical and acoustic research has generated substantial and valuable knowledge concerning vocal function, perception and intervention. The more useful distinction concerns the questions such evidence can answer.

Acoustic research can identify relationships between vocal behaviours and listener perception, and physiological research can illuminate possible consequences of vocal adjustment. Hughes et al. (2023), for example, provide a more specific caution than a general call for care. Their video-stroboscopic analysis of transgender patients found that an increased glottal gap and open quotient correlated with the duration of voice therapy rather than the duration of hormone therapy, suggesting that the vocal fold changes observed may result from the practice of voice training itself, potentially arising from sustained efforts to produce a softer or breathier vocal quality, rather than from hormonal intervention. This finding is pedagogically significant because it implies that physiological risk in voice training cannot be assumed to reside solely within its most visibly interventionist elements, such as hormone therapy or surgery; well-intentioned, non-

clinical exploratory practice may itself produce unanticipated laryngeal changes over time. Such evidence cannot determine whether a particular outcome is meaningful, desirable or identity-affirming for an individual learner, as previously argued, but it does provide a concrete physiological rationale for the artefact's emphasis on short sessions, rest prompts, and pacing over intensity, positioning sustainability as a matter of structural design rather than solely of user discretion.

The challenge is therefore not to reject modification-oriented or clinical knowledge but to establish its appropriate place within a broader pedagogical framework in which vocal goals may be exploratory, fluid, performative or self-defined.

From Voice Modification to Inclusive Voice Pedagogy

This question leads directly to what constitutes evidence within voice pedagogy. Ragan's (2018) Evidence-Based Voice Pedagogy framework offers a useful foundation by locating pedagogical decision-making at the intersection of research evidence, practitioner expertise and learner goals. This resists the assumption that published research alone determines effective teaching and acknowledges that pedagogical choices must be contextually interpreted.

In developing the prototype app, this principle informed the inclusion of explanatory rationale, safety information, clear cueing, and reflective choice rather than the simple transmission of exercises.

When placed alongside ASSEMBLE, however, Ragan's framework prompts a further question: *What counts as evidence when determining whether voice pedagogy is inclusive?*

Empirical research can establish the likely acoustic, perceptual or physiological consequences of a vocal behaviour. Practitioner knowledge can support appropriate sequencing, interpretation and adaptation. Yet participant experience also provides knowledge about whether an intervention feels meaningful, sustainable, accessible or appropriate.

This distinction is not confined to pedagogical theory; it is increasingly recognised within contemporary voice measurement science itself. Rae et al.'s (2026) large-scale validation

of the GENDER-Q *Voice Sound and Voice Distress scales* confirms satisfaction with one's voice and voice-related distress as psychometrically distinct constructs, each requiring dedicated patient-reported measurement rather than inference from acoustic data.

Notably, their findings show that both voice scales correlate only moderately ($r = 0.3\text{--}0.5$) with broader measures of gender dysphoria, social acceptance and psychological well-being, indicating that these are related but non-interchangeable domains of experience. This is a significant methodological precedent for the present study: it demonstrates that even within outcome-oriented, psychometrically rigorous paradigms, participant-reported meaning is treated as answering a fundamentally different question to acoustic or physiological assessment, rather than as a softer or subordinate proxy for it. If this distinction is accepted within clinical measurement science, it lends further support to the argument that inclusive voice pedagogy cannot adequately evaluate its own success, or its own inclusivity, through acoustic-perceptual evidence alone.

This distinction matters because evidence demonstrating that an intervention produces measurable change does not establish that the change is desirable for every learner. Inclusive evidence-informed pedagogy may therefore require not less rigour but a broader account of relevant knowledge and greater transparency concerning who determines the desired outcome. ASSEMBLE's emphasis on agency, embodiment and meaning-making extends the evidence-based model by positioning the learner not merely as the recipient of expertise but as a source of situated knowledge within the pedagogical encounter.

This has practical consequences for pedagogical language. The Module 5 prototype deliberately moved away from binary target descriptors towards functional language such as 'forward resonance', 'lighter airflow' and 'rounder vowel shape'. Such terminology does not deny that acoustic changes may influence gender perception; rather, it separates exploration of vocal possibility from an instruction regarding what that possibility should mean.

The distinction also establishes a useful methodological boundary around acoustic-perceptual evidence. Leyns et al. (2024) demonstrate that articulation exercises can influence listener perception even where corresponding acoustic change is inconsistent, while Brennan et al. (2025) complicate binary understandings of gender perception from a different angle, demonstrating that while LGBTQIA+ and cisgender-heterosexual listeners

showed close agreement in their graded ratings of recorded voices, the two groups differed markedly in the descriptive vocabulary used to articulate what they heard: cisgender-heterosexual participants relied on a narrow, largely binary lexicon, whereas LGBTQIA+ participants employed substantially more varied and combinatory descriptive language. This distinction is analytically significant because it separates the perceptual mechanism of gendered listening, which may be broadly shared, from the conceptual and linguistic repertoire through which that perception is understood and communicated, which is not.

Read together, this body of work supports an understanding of vocal gender as multidimensional both acoustically and linguistically, and provides an empirical rationale for the present study's decision to prioritise participant-authored vocabulary over fixed or predetermined descriptive categories. This evidence base, however, does not provide a complete pedagogical model. These studies cannot determine what a learner wishes to explore, whether an exercise feels identity-congruent or whether a particular training process is sustainable.

Inclusive pedagogy therefore involves not only what is taught but how knowledge, authority and choice are distributed.

Embodied, Sustainable Performance Voice

The significance of embodiment extends this argument further. Within *Practice as Research*, Nelson (2022) positions practice as a site through which knowledge may be generated rather than merely applied. Smith and Dean (2009) similarly situate creative practice and research in a reciprocal relationship. These approaches are relevant to the present study because the prototype is not simply a container for pre-existing theory: its design has required theoretical principles to become practical decisions concerning language, sequence, pacing, safety, reflection and user interaction.

Two different forms of embodied knowledge must nevertheless be distinguished. The first concerns the learner's embodied experience: what is sensed, noticed, interpreted and discovered through vocal activity. The second concerns embodied practitioner knowledge developed through experience of teaching and making. Practitioner knowledge can offer an important source of insight, but it should not be treated as self-validating. The fact that

a design decision feels pedagogically appropriate to its creator does not establish how it will be experienced by another person.

This is particularly important within an insider practitioner-research project. The prototype necessarily contains assumptions derived from professional experience as well as literature. Reflexive practice and participant critique therefore become mechanisms through which tacit knowledge can be made visible, interrogated and, where necessary, modified.

The focus on actors adds a further distinction to the literature. Much TGNB voice scholarship has developed within speech-language pathology, gender-affirming communication or everyday communicative contexts. This research focuses specifically on actors and performers. Its ethics documentation therefore distinguishes the proposed application from clinical intervention and identifies a need for non-clinical resources that can support creative, exploratory performance practice.

Performance introduces demands that are not necessarily captured by everyday communication goals: character transformation, expressive range, repeated performance, rehearsal, audition, vocal load and the capacity to move between different vocal possibilities. Accetta's (2022) account of adapting Estill Voice Training for a gender non-binary student offers a closer methodological and pedagogical parallel to the present study than this brief mention suggests.

Discovering that her existing vocabulary implicitly reproduced gendered assumptions, Accetta replaced binary descriptors such as 'chest voice', 'head voice' and 'falsetto' with anatomically grounded, functional terminology such as 'thick' or 'thin true vocal fold body cover', reasoning that a focus on physiological function rather than gendered category allowed every student to explore every vocal quality without being positioned relative to a male or female norm. This move is functionally continuous with the present prototype's own rejection of gendered target descriptors in favour of language such as forward resonance, lighter airflow and rounder vowel shape: both approaches treat gender-neutral, function-based vocabulary not as a stylistic softening of pedagogy but as a substantive mechanism for redistributing pedagogical authority away from normative vocal endpoints.

Accetta's work is also methodologically significant for the present study, since she frames her own practice explicitly as Performance as Research (citing Oram, 2015), combining

student interviews, surveys and reflective practitioner observation to interrogate and adapt her own studio pedagogy. This provides a directly comparable precedent for the present researcher's position as both designer and practitioner-researcher, demonstrating that gender-inclusive voice pedagogy has already been subjected to reflexive, practice-led inquiry of the kind undertaken here, albeit within a live singing studio rather than a self-directed digital environment. Nonetheless, the broader evidence base remains weighted towards communication and clinical settings, and applied, performance-specific accounts such as Accetta's remain comparatively rare.

This complicates authenticity again. For an actor, authenticity cannot necessarily mean maintaining a single stable voice that always resembles their everyday vocal identity. Creative work may require departure, transformation and experimentation. A more useful performance-oriented formulation may therefore concern the actor's ability to make expressive choices while retaining agency over those choices.

Sustainability becomes correspondingly significant. Voice for performers must function not only during isolated exercises but across rehearsal, repetition and changing physical or emotional conditions. Quinn, Oates and Dacakis' (2023) evidence of varied responses to intensive training cautions against assuming that greater intensity or faster change is universally desirable. Sustainability may instead require pacing, capacity for adaptation, rest, and the ability to return to practice without being positioned as having failed.

The Module 5 prototype operationalised this position through short sessions, optional reflection, rest prompts and rejection of rigid streak-based engagement. Its design therefore reflects a developing conceptualisation of sustainability not simply as vocal health, but as the possibility of maintaining an ethically and practically workable relationship with voice practice over time.

Translating Inclusive Pedagogy into Digital Practice

Digital delivery introduces another layer of complexity because an interface is not a neutral container for pedagogy. Ahmed, Kim and Hoffmann (2022) draw attention to how transgender voice-training applications negotiate authenticity and authority, while Alter et al. (2024) demonstrate a community-engaged approach to developing a gender-affirming voice application. Together, this work indicates that digital voice training is both an emerging field of practice and a site where assumptions about expertise, goals, and vocal

change can become embedded in technological design. This proposal consequently identifies a gap in non-clinical, self-directed resources centring autonomy, sustainability, and embodied meaning-making for performers.

User-centred design scholarship helps explain why this matters. Norman (2013) emphasises affordances and the intelligibility of interaction, while Nielsen's usability principles foreground visibility, consistency, flexibility and reduction of user error. Within the prototype, these principles informed simplified navigation, limited screen transitions, clear labelling, accessibility options and attempts to reduce cognitive load.

Yet the pedagogical implications extend beyond usability. In a face-to-face session, a practitioner may recognise hesitation, change an explanation, reduce intensity, abandon an exercise or respond to an unforeseen emotional reaction. A self-directed application cannot reliably reproduce such relational responsiveness. Consequently, principles that might otherwise remain implicit within teaching must be expressed materially through design.

Pedagogical values and design decisions.

Agency may be represented by the ability to pause, skip or select an alternative. Sustainability becomes visible through session duration, pacing and permission to return after absence. Safety becomes embedded through accessible guidance and explicit stop options. Non-coercion may be expressed through the absence of streaks, scoring and achievement pressure. Inclusivity becomes present — or absent — in terminology, microcopy, assumptions, navigation and the choices offered to users.

This creates an important paradox. Self-directed digital learning may increase autonomy by reducing dependence on a practitioner, widening access and allowing users greater control over pacing. At the same time, removing the visible teacher does not necessarily remove pedagogical authority. Authority may instead become less visible because it is encoded within the application's architecture: which options appear, how progress is represented, what terminology is used, and which outcomes are implicitly valued.

Digital autonomy must therefore be distinguished from the simple absence of a teacher. A user can only exercise meaningful choice between possibilities that the designer has made available.

From Theoretical Inclusion to Participatory Refinement

This problem provides the rationale for participant involvement in the present study. In Module 5, I produced a practice-led, literature-informed conceptual prototype in which principles drawn from ASSEMBLE, Evidence-Based Voice Pedagogy, contemporary voice science and user-centred design were translated into interface structure, exercise architecture, safety frameworks and microcopy. The resulting artefact may demonstrate theoretical coherence, but theoretical coherence cannot establish how those choices will be interpreted or experienced by TGNB actors.

The distinction between intention and experience is therefore central. A designer may intend a phrase to communicate choice; a participant may experience it as directive. A safety feature may be intended as reassuring but experienced as intrusive or unnecessary. An interface intended to simplify practice might remove a form of choice participants consider important. Inclusivity cannot therefore be established solely through the presence of inclusive terminology or alignment with an existing framework.

For this reason, the Module 6 study foregrounds refinement rather than validation. Participants are invited to engage critically with the prototype and contribute to its evaluation and pedagogical development. This does not constitute full co-design of the original artefact, because participants did not establish its initial research agenda or conceptual architecture. Describing their role more precisely as participatory evaluation and refinement avoids overstating the level of participant involvement while retaining the epistemological significance of lived experience. The project proposal accordingly positions the prototype as both object and site of inquiry and seeks specifically to identify tensions, blind spots and required refinements.

Taken together, the literature therefore identifies several well-developed but only partially intersecting bodies of knowledge. Acoustic-perceptual research demonstrates the multidimensional nature of vocal gender perception. Gender-affirming and culturally responsive scholarship increasingly foregrounds agency, context, embodiment and self-determined goals. Evidence-based voice pedagogy integrates research, practitioner knowledge and learner priorities. Performance voice introduces specific demands of expressive range, repetition and sustainability. Digital design offers new possibilities for accessibility and self-direction while also encoding pedagogical assumptions and authority.

What remains less developed is the intersection of these areas: the translation and lived evaluation of inclusive, non-clinical voice pedagogy within a self-directed digital environment designed specifically for TGNB actors.

The present study therefore examines how theoretically grounded principles of agency, embodiment, identity affirmation and sustainability are experienced when operationalised within a practitioner-designed digital voice-training prototype. Participant engagement is not employed to establish whether the artefact is 'correct', but to interrogate what happens when theoretically inclusive pedagogy becomes lived digital practice and to identify how participant experience may consequently inform its iterative pedagogical refinement.

The literature can establish what inclusive pedagogy intends. It cannot, by itself, establish whether that inclusion survives translation into a digital encounter. That question requires lived engagement.

Methodology and Methods

Research Paradigm and Methodological Orientation

This study adopts a constructivist qualitative research paradigm, recognising knowledge as situated, interpretive and co-constructed through lived experience and reflective dialogue. This position is appropriate because the research does not seek to establish an objectively measurable effect of the prototype on participants' voices. Rather, it examines how inclusive digital voice pedagogy is experienced, interpreted and critically appraised by transgender and non-binary actors, and how those experiences may expose tensions, assumptions and opportunities for pedagogical refinement.

The Module 6 proposal therefore deliberately moves beyond the practice-led heuristic modelling undertaken in Module 5 towards participatory engagement with the developing artefact.

A constructivist position also reflects the conceptual framing established in the literature review. Concepts central to the study, including authenticity, sustainability, agency and identity affirmation, are not treated as fixed phenomena that can be externally measured against predetermined standards. Their meanings may vary between participants and

across contexts. The research therefore privileges participants' accounts of their own experiences rather than attempting to determine whether a particular vocal or pedagogical outcome is objectively 'successful'.

This does not imply that all interpretations are treated as interchangeable or that the study rejects empirical voice science. Rather, different forms of evidence are understood as answering different questions. Acoustic or physiological research may provide evidence concerning vocal function or perception, while qualitative participant accounts provide evidence concerning meaning, usability, appropriateness, agency and lived pedagogical experience. The methodology is consequently designed to investigate an aspect of the prototype that cannot be established through acoustic measurement alone.

The methodological orientation combines participatory design research, practitioner research and reflexive thematic analysis, with the prototype functioning as both an artefact and a site of inquiry. The study is participatory in that participants actively contribute to the evaluation and refinement of the developing prototype. However, the term is used with caution. Participants were not involved in determining the original research question or creating the first conceptual architecture of the application; describing the project as full co-design would therefore overstate their involvement. Their contribution is more accurately understood as participatory evaluation and pedagogical refinement.

This distinction is methodologically important. The study does not seek participant endorsement of a practitioner-designed artefact. Instead, participant engagement is intended to interrupt the potential circularity of designing a prototype according to inclusive theoretical principles and subsequently evaluating it only against those same principles. By foregrounding refinement rather than validation, the research treats discrepancies between design intention and participant experience as potentially valuable findings rather than failures. This approach is consistent with the proposal's framing of pedagogy as dialogic, responsive and ethically accountable rather than fixed or prescriptive.

Relationship to the Previous Practice-Led Phase

The research represents the second stage of a continuing practice-led inquiry. During Module 5, I undertook a literature review, design research and iterative artefact development to establish the theoretical and conceptual foundations of a prototype digital voice-training application. That work drew on Practice as Research, design-oriented

approaches and user-centred design, with iterative cycles of reading, drafting, reflection and refinement informing the prototype's structure, language, exercise architecture and Safety & Care framework.

Module 5 consequently generated what Nelson (2022) describes as forms of knowing through practice, while Cross's concept of 'Designerly Ways of Knowing' supported the understanding of modelling and prototyping as processes of inquiry rather than merely representation. The artefact was progressively shaped through the translation of inclusive voice-pedagogical principles into practical design decisions, including non-linear navigation, neutral functional terminology, optional reflection, accessible session structures and an emphasis on agency.

However, the limitations of this earlier phase were significant. The prototype remained grounded primarily in literature and practitioner interpretation and had not yet been evaluated through lived engagement. Module 5 itself identified the absence of empirical user feedback as a principal limitation and explicitly deferred higher-fidelity prototyping and user testing to Module 6.

The present methodology responds directly to that limitation. Whereas Module 5 asked how inclusive voice-pedagogical principles might be operationalised through prototype design, Module 6 asks what happens when those principles are encountered by the people for whom the resource is intended.

Participants and Sampling

The proposal anticipated a purposive sample of approximately six to eight transgender and non-binary actors. Five participants ultimately completed the study. This remained appropriate to the qualitative and exploratory nature of the research, which prioritised depth of engagement with individual accounts rather than statistical representation. Participants were required to be adults, to identify as transgender or non-binary, to have experience of or active involvement in performance contexts, and to have an interest in exploring or developing their voice. The study did not require previous formal gender-affirming voice training, clinical intervention or professional acting status.

Purposive sampling was appropriate because the project does not seek statistical representativeness or population-level generalisation. Instead, it requires participants

whose lived and creative experience enables them to engage meaningfully with the specific pedagogical and performance questions under investigation. A small sample also allows detailed engagement with individual accounts while remaining manageable within the scope of an MA practitioner research project.

The proposal anticipated a mixed cohort including participants already known to the researcher and individuals recruited beyond immediate professional networks. This was intended to balance relational trust with critical distance. The inclusion of participants known to the researcher may facilitate openness and contextual understanding, but it also creates potential risks of perceived obligation, role confusion and social desirability bias. For this reason, recruitment excluded individuals in current teaching, supervisory or assessment relationships with the researcher. Open recruitment and self-selection were used to reduce perceived pressure to participate. The risk assessment identifies this risk as low and specifies that no participants should be recruited from relationships in which the researcher currently holds evaluative authority.

No attempt was made to verify participants' gender identities, and the study did not collect unnecessary medical or transition-related information. The ethics application specifies that gender identity is relevant only insofar as it establishes eligibility for a study designed for trans and non-binary performers; participants were not required to disclose hormone use, surgical history, diagnostic information or other clinical details.

Research Design and Procedure

The study follows a three-phase design consisting of pre-engagement interviews, a prototype engagement period and post-engagement interviews. This structure enables comparison between participants' expectations and prior experiences before encountering the prototype and their subsequent lived experience of using it.

Phase One: Pre-Engagement Interviews

Participants first took part in a semi-structured pre-engagement interview. Semi-structured interviewing was selected because it provides sufficient consistency across participants to address the research aims while allowing unexpected experiences, interpretations and concerns to emerge.

The interview explores participants' existing relationship with voice, previous experiences of voice training, the relationship between voice and performance, understandings of authenticity and sustainability, experiences of digital learning, and expectations of an inclusive voice-development resource. Importantly, the schedule avoids supplying fixed definitions of key concepts before participants have had an opportunity to articulate their own understandings.

This is particularly important in relation to terms such as 'authenticity', 'supportive practice' and 'sustainability'. The purpose of the pre-engagement interview is not to establish whether participants already align with the theoretical framework underlying the prototype, but to create a baseline account of their existing perspectives before exposure to its language and design.

The semi-structured format also allows participants to raise issues the researcher did not anticipate. This supports the study's constructivist and reflexive orientation by recognising that the interview schedule reflects the researcher's existing assumptions about what may be important.

Phase Two: Prototype Engagement

Following the initial interview, participants engage independently with the prototype over approximately two to three weeks. The application offers short, structured voice-development sessions while allowing participants autonomy over pacing, frequency and extent of engagement. Participants are not required to complete all content, follow a fixed progression or achieve a predetermined vocal outcome.

This autonomy is both an ethical safeguard and a substantive part of the pedagogical design being investigated. Participants may pause, skip, adapt or discontinue activities according to their own needs. The prototype incorporates Safety & Care guidance and is designed around short exploratory tasks rather than extended or intensive vocal work.

Optional reflective journaling may be used during the engagement period to support participants' own noticing and reflection. However, the journal is not positioned as a compliance mechanism or a measure of progress. Nor is non-use interpreted as lack of engagement. This is consistent with the prototype's rejection of streaks, compulsory completion and normative progress metrics.

A methodological distinction is necessary between engagement with the prototype and research data collection. The ethics application approved qualitative feedback concerning participants' experiences of the application, while also requiring data minimisation and secure research-data handling. The application itself is therefore treated principally as the environment being experienced rather than an instrument for covert behavioural monitoring. No microphone recording, acoustic analysis, biometric measurements or automatic evaluation of participants' voices forms part of the study.

This distinction is especially important because the research concerns agency and non-coercive digital pedagogy. Extensive background analytics could undermine those principles by transforming participant autonomy into behavioural surveillance. The study therefore relies principally on participant-reported experience rather than hidden engagement metrics.

Phase Three: Post-Engagement Interviews

After the engagement period, participants took part in a second semi-structured interview. This explores how the prototype was experienced in practice, including usability, navigation, pedagogical clarity, emotional comfort, identity alignment, performance relevance, sustainability and opportunities for refinement. Particular attention is given to moments where participants adapted, rejected, misunderstood or resisted aspects of the prototype because such moments may reveal assumptions embedded within the original design.

The post-engagement interview is deliberately not framed as a satisfaction survey. Participants are not asked simply whether they 'liked' the application or whether they believe their voice improved. Instead, questioning explores what felt useful or unhelpful, what supported or constrained choice, what seemed relevant to performance, what was missing and what they would alter for future users.

The paired pre/post structure therefore enables several comparisons:

- Expectation and experience
- Intention and interpretation
- Theoretical design and lived encounter
- Anticipated support and experienced support
- Researcher assumptions and participant-generated priorities

Critical, mixed and negative experiences are treated as analytically valuable rather than as evidence of participant non-compliance or prototype failure.

Reflexive Thematic Analysis

Qualitative interview data were analysed using reflexive thematic analysis, following Braun and Clarke (2021). This approach is appropriate because the study seeks to identify patterned meaning across participant accounts while retaining sensitivity to individual complexity and context.

Reflexive thematic analysis is particularly compatible with the constructivist paradigm because themes are not treated as objective entities waiting to be discovered within the data. Analysis is understood as an interpretive process shaped by engagement between the dataset, research question, theoretical orientation and researcher. The researcher therefore has an active analytical role rather than functioning as a neutral coding instrument.

The analysis will involve repeated familiarisation with interview material, initial coding, generation of candidate themes, iterative review and development of themes, and the production of an interpretive account that addresses the research question. Analysis will attend to both convergence across participants and meaningful divergence where individual experiences challenge apparent patterns.

Particular care was taken not to allow the prototype's existing conceptual vocabulary to predetermine the thematic structure. Concepts such as agency, authenticity, sustainability, embodiment and safety provide theoretical sensitising ideas but will not operate as compulsory coding categories. If participants organise their experiences through different concepts or challenge the relevance of those terms, such divergence forms part of the findings rather than analytical noise.

This distinction is important because the study aims to interrogate rather than validate the prototype's theoretical foundations.

The analytical process therefore moved iteratively between participant accounts and the existing pedagogical framework. Where themes affirmed a design decision, this was documented; where they complicated or contradicted it, those tensions were given equal

analytical weight. Refinements to content, sequencing, microcopy or interface design will subsequently be recorded and critically evaluated against both participant experience and the literature, creating an audit trail:

Theory → Design Intention → Participant Encounter → Interpretation → Refinement.

Researcher Reflexivity and Insider Research

Insider positionality is central to the project. The researcher is both the designer of the prototype and a practising voice practitioner, and consequently enters the study with substantial professional experience, established pedagogical commitments and emotional investment in the artefact.

This proximity offers methodological advantages. Practitioner experience provides contextual understanding of actor training, voice practice and the practical implications of pedagogical decisions. It also enables detailed interpretation of how theoretical principles were translated into the prototype. However, insider knowledge may produce blind spots, confirmation bias or an inclination to defend design decisions that have required considerable personal investment.

The risk assessment explicitly identifies potential bias and role confusion arising from the researcher's practitioner background and addresses this through transparent research framing, voluntary participation, reflexive documentation and the absence of assessment of participants' vocal abilities.

Reflexivity is therefore treated as a methodological practice rather than a statement of researcher identity. A reflective journal has been maintained throughout the project to document decisions, assumptions, emotional responses, interpretive uncertainties and changes in thinking. Particular attention is paid to moments where participant responses contradict expectations, where familiarity with a participant may influence interpretation, or where the researcher feels a desire to explain or defend the prototype.

The distinction between researcher and coach is also maintained throughout. Participants are informed that the study is not a coaching intervention and that their voices are not being assessed. During research interviews, the researcher does not attempt to correct

participants' vocal practice, prescribe goals or transform critical feedback into a teaching interaction.

This boundary is especially significant because the researcher occupies a position of expertise within voice practice. Even within a constructivist study, claims of co-construction should not obscure asymmetries of knowledge and power. Reflexive practice therefore includes ongoing attention to how interview questions, application architecture and interpretation may continue to privilege researcher-defined concerns.

Ethical Considerations

Ethical approval was obtained before participant data collection. The ethical design of the study is closely connected to its pedagogical aims: participant autonomy, non-coercion and identity affirmation operate both as research safeguards and as features of the practice being investigated.

The project is categorised as low risk. Potential participant risks include mild emotional discomfort when discussing voice or identity and mild vocal or physical fatigue during optional exercises. The approved risk assessment mitigates these risks through voluntary and self-paced participation, the ability to skip activities or questions, clear Safety & Care guidance, short non-evaluative exercises and unrestricted withdrawal without consequence. No performance assessment, correction or comparison is undertaken.

Participants are informed that they may pause, decline to answer, adapt activities or discontinue participation. Interview facilitation is intended to be trauma-informed and non-pathologising, with relevant support signposting available if needed. The prototype is explicitly positioned as a non-clinical educational and performance-development resource rather than a substitute for speech and language therapy or medical advice.

The study also minimises collection of sensitive data. Contact information is collected only where necessary for communication, consent and debriefing. Participants may identify themselves as trans or non-binary for inclusion purposes, but no identity verification is undertaken. No audio or video recordings of participants' voices or faces, biometric data, medical history or clinical outcome data are collected as part of the study.

Participant anonymity and confidentiality are maintained throughout reporting. Qualitative feedback is anonymised during transcription and analysis using participant-chosen pseudonyms, with identifying details removed or generalised. Research data is stored securely in password-protected files accessible only to the researcher and managed in accordance with GDPR and UWTSD policy.

The digital nature of the prototype requires particular caution around data storage. The approved ethics documentation specifies secure researcher-managed storage and does not authorise the indiscriminate collection of participant research data through third-party cloud services. Consequently, use of the prototype itself is kept methodologically distinct from formal research-data collection, and no additional automated data collection should be introduced without confirming that it remains within the scope of ethical approval.

Methodological Limitations

The methodological design has several limitations.

First, the small purposive sample cannot provide statistical generalisability across the diverse population of trans and non-binary performers. Participants' experiences are shaped by individual identity, performance background, previous training, technological familiarity and personal relationships with voice. The study therefore seeks depth, interpretive insight and pedagogical transferability, rather than representative claims about all TGNB actors.

Second, participants who volunteer for a study concerning digital voice training may already have greater interest in voice development or digital learning than individuals who choose not to participate. Self-selection may therefore influence the perspectives represented.

Third, the inclusion of some participants known to the researcher may support relational trust but may also increase social desirability effects. Participants may moderate criticism because of an existing professional relationship. Clear encouragement of critical feedback and inclusion of participants beyond immediate networks reduce but cannot eliminate this possibility.

Fourth, the researcher's dual role as prototype designer and analyst creates an unavoidable interpretive investment in the artefact. Reflexive thematic analysis does not claim to remove this subjectivity; rather, it requires the researcher to make interpretive positioning visible and critically accountable. The reflective journal, documented design decisions and deliberate attention to contradictory accounts provide mechanisms for interrogating rather than pretending to eliminate this influence.

Fifth, the study evaluates a prototype, not a mature commercial application. Findings concerning interface design, functionality and usability must therefore be understood within the technological constraints of the version participants encounter. The study is primarily concerned with pedagogical translation and participant experience rather than software performance.

Finally, the two-to-three-week engagement period provides insight into relatively short-term interaction rather than sustained use over months or years. Claims about long-term vocal sustainability, behaviour change or continuing engagement would therefore exceed the scope of the data.

These limitations establish important boundaries around interpretation but do not undermine the study's purpose. The research is designed as an exploratory practitioner inquiry into how inclusive pedagogical intentions are encountered in lived digital practice and how participant experience can inform subsequent refinement.

Methodological Synthesis

Taken together, the methodological design aligns the research question, epistemological position and methods. A constructivist qualitative paradigm enables participant experience to be treated as situated knowledge rather than as evidence against externally imposed vocal standards. Participatory evaluation exposes the practitioner-designed prototype to critical lived engagement. Semi-structured pre- and post-engagement interviews allow expectations and experiences to be examined without restricting participants to predetermined categories. Reflexive thematic analysis provides a systematic but interpretive means of identifying patterns and tensions across those accounts. Practitioner reflexivity makes the researcher's own role within knowledge production visible, while the ethical framework preserves autonomy, confidentiality and non-coercion throughout the study.

The methodology therefore reflects the same principle that underpins the prototype itself: theoretical intention is insufficient without attention to lived experience.

Findings

Overview of Findings

Reflexive thematic analysis of the participant accounts generated five interconnected themes:

No Prescribed Destination; Expertise Without a Single Ladder; Practice That Bends Without Punishment; Trust Grows Where the System Exercises Restraint; and A Companion to Situated Performance Practice.

Theme	Core Question	Core Finding	Prototype Refinement	Theoretical Alignment	Pedagogical Principle
1. No Prescribed Destination	Who determines vocal direction?	Participants valued agency over predetermined vocal outcomes.	Preserve non-gendered language, participant-led goals, flexible pathways.	ASSEMBLE, culturally responsive pedagogy, Braun & Clarke.	Participants retain authority over their destination.
2. Expertise Without a Single Ladder	What counts as expertise?	Expertise was valued most when it worked alongside lived experience rather than above it.	Add richer rationale, performer pathways, contextual explanation.	ASSEMBLE, evidence-informed pedagogy, Practice as Research.	Professional expertise remains essential—but it works best in partnership with participant knowledge rather than above it.
3. Practice That Bends Without Punishment	How should learning unfold?	Sustainable practice accommodates interruption, recovery and return.	Expand recovery pathways, context-specific practice, reflective prompts.	Ghaye, Bolton, reflective practice, Practice as Research.	Meaningful voice development accommodates interruption rather than treating it as failure.
4. Trust Grows Where the System Exercises Restraint	What creates trust?	Trust developed through transparency, privacy and deliberate technological restraint.	Foreground privacy, clarify data handling, maintain non-surveillance design.	ASSEMBLE, ethics, insider research, digital ethics.	Trust is built as much through what technology refuses to demand as through what it provides.
5. A Companion to Situated Performance Practice	What is the role of digital pedagogy?	Participants viewed the prototype as complementing rather than replacing performer training.	Strengthen rehearsal/self-tape/performance pathways; reinforce links to teachers and coaches.	Nelson, Practice as Research, situated learning, ASSEMBLE.	Digital pedagogy strengthens performance practice when it accompanies rather than replaces human teaching.

These themes were identified and constructed through repeated engagement with the dataset rather than treated as categories waiting to be discovered. In keeping with Braun and Clarke's (2021) approach to Reflexive Thematic Analysis, they represent patterns of shared meaning organised around central concepts while retaining meaningful variation between individual participants.

Appendix E presents the complete thematic analysis, including participant evidence, interpretation, prototype refinements, theoretical alignment, and conceptual anchors. The present section therefore synthesises the principal findings rather than reproducing the full analytical record.

Although analytically distinct, the five themes were strongly interconnected. Collectively, they described a digital voice pedagogy characterised by participant agency, plural understandings of expertise, adaptability, ethical restraint and complementarity with existing performer training. Across the dataset, participants did not appear to seek less structure, less knowledge or less pedagogical support. Rather, they consistently valued forms of structure and expertise that increased their capacity to make informed choices about their own voices.

This distinction became increasingly important throughout the analysis. The prototype was not principally valued because it avoided gendered language or offered convenient digital access, but because participants experienced its design as redistributing pedagogical authority towards the performer.

Theme One: No Prescribed Destination

The first theme concerned participants' resistance to predetermined vocal outcomes. Across the dataset, participants consistently valued an approach that enabled them to explore vocal possibilities without implying that successful engagement required movement towards a particular masculine, feminine or otherwise gendered sound. The fuller thematic record demonstrates that this pattern extended across different levels of prior training and professional experience.

Robin articulated this particularly clearly when describing how the prototype: *'asked what I wanted rather than assuming a destination'* (Appendix D).

For Robin, the consistent use of functional terms such as resonance, pitch range and breath support was significant precisely because these terms did not predetermine what those vocal qualities should mean in relation to gender. Mari similarly valued not being reduced to a feminisation journey, while Priya responded positively to opportunities for play and exploration without scores or externally imposed 'correct' outcomes. Jim's desire for greater technical depth did not contradict this pattern; instead, it demonstrated that participants distinguished between **guidance** and **prescription**.

The significance of this finding therefore extended beyond inclusive language. During analysis, codes relating to participant choice, non-gendered terminology, exploration, absence of judgement and goal ownership coalesced around a broader organising concept: participants retained authority over the direction and meaning of their own vocal development.

This finding strongly supported retaining participant-defined goals, functional terminology and non-linear pathways in future iterations of the prototype. It also suggested that greater technical sophistication need not result in greater prescription; participants wanted deeper knowledge while retaining control over how that knowledge was applied.

This resonates with Azul and Quoresimo's (2022) culturally responsive approach, which foregrounds dialogue, cultural humility and individual goals rather than practitioner assumptions, and with ASSEMBLE's understanding of voice and gender as dynamically negotiated across multiple interacting forces rather than directed towards a singular endpoint.

TAKE AWAY:

Participants did not reject expertise; they rejected expertise that presumed to know their destination before they did.

Theme Two: Expertise Without a Single Ladder

The second theme concerned what participants understood expertise to be and where it could legitimately reside. Participants consistently valued professional knowledge and

technical explanation, but their accounts challenged any assumption that expertise could be organised through one simple hierarchy of novice-to-expert knowledge.

Jim and Robin both requested greater explanation of why particular exercises worked and how they related to vocal function. Mari, drawing on substantial professional experience as a performer, narrator and teacher, wanted greater depth and more profession-specific pathways. Priya, however, valued accessible explanation and freedom from the expectation that useful engagement required extensive specialist vocabulary. Across these accounts, expertise was distributed across formal study, professional practice, embodied knowledge and lived experience.

This pattern became particularly significant during coding because requests for greater technical depth initially appeared distinct from concerns about accessibility. Further analysis suggested that these were not competing demands. Participants wanted an accessible entry point **and** the option to move towards greater complexity. They did not want simplicity to become condescension, nor specialist language to become a gatekeeping mechanism.

Consequently, the findings support a layered approach to future content: clear initial definitions, concise pedagogical rationale, and optional deeper technical or professional material. Existing practice should be invited rather than inferred from qualifications, and participants should be able to move between levels according to context rather than being fixed into predetermined ability categories.

This finding aligns with evidence-informed and culturally responsive approaches to voice pedagogy, which situate practitioner expertise alongside research evidence, learner goals and lived experience rather than privileging a single source of knowledge (Ragan, 2018; Azul and Quoresimo, 2022). ASSEMBLE similarly complicates singular authority by locating voice within interacting speaker, listener, professional, sociocultural and biophysiological forces (Azul and Quoresimo, 2022).

TAKE AWAY:

Professional expertise remains essential, but it works most effectively in partnership with participant knowledge rather than above it.

Theme Three: Practice That Bends Without Punishment

The third theme concerned sustainability. Participants did not primarily define sustainable practice through frequency, consistency or uninterrupted progression. Instead, they valued the capacity to pause, adapt and return to practice without guilt, penalty or an implied loss of progress.

Robin described leaving the prototype for several days during a busy audition period and returning without encountering 'guilt-tripping messaging'. They also described stopping an exercise when their voice felt tight without being made to feel that they had performed the activity incorrectly. Priya similarly valued being able to adapt or skip material, while Mari and Jim emphasised the importance of accommodating professional workload, vocal fatigue and changing performance demands.

During analysis, codes relating to flexibility, pausing, short sessions, fatigue, recovery and return initially appeared to concern usability. Their shared meaning, however, concerned a broader conceptualisation of sustainability: practice remained sustainable when it could respond to changing bodies, schedules and circumstances rather than demanding uniform compliance.

This distinction has direct implications for prototype refinement. The absence of streaks, compulsory completion and punitive reminders should be retained, while future iterations could provide selectable session lengths, improved recovery material and context-sensitive guidance for rehearsal, touring, narration, teaching and audition periods.

Ghaye's (2010) account of reflective practice is particularly useful here. His emphasis on reflection as action-oriented, strengths-based and capable of supporting human flourishing provides a useful counterpoint to deficit-oriented approaches in which interruption is interpreted principally as failure. He argues instead for reflective practices that recognise what supports people and use that understanding to enable constructive future action (Ghaye, 2010; 2011).

TAKE AWAY:

Meaningful voice development accommodates interruption rather than treating it as failure.

Theme Four: Trust Grows Where the System Exercises Restraint

The fourth theme concerned trust. Participants repeatedly valued not only what the prototype offered, but what it deliberately refused to demand. Privacy, transparent data handling, non-evaluative language, the absence of automated voice analysis and the refusal to require unnecessary personal disclosure all contributed to a sense that the digital environment respected participant boundaries.

Robin emphasised the importance of explicit reassurance that their voice would not be recorded, analysed or transmitted, alongside transparency about what other personal data might be collected, who could access it and how it could be deleted. Jim wanted explicit separation between the prototype and drama-school assessment. Mari valued the absence of voice recording, gender prediction and investigation into personal voice history, while Priya responded positively to an environment without scores or evaluative feedback.

The central organising concept was therefore broader than privacy. Participants appeared to trust the system when it demonstrated restraint: when it avoided collecting, judging or categorising information unless such intervention had a clear pedagogical purpose. Ethical behaviour was consequently experienced through ordinary interaction with the interface, not solely through consent forms or institutional ethics procedures.

Future refinements should therefore foreground privacy and data information earlier, communicate clearly the separation between personal reflections and institutional records, and resist introducing tracking or analytical functions merely because they are technologically possible.

This finding extends the study's ethical argument. Culturally responsive practice depends upon humility, respect and attention to individual needs (Azul et al., 2022; Azul and Quoresimo, 2022), but the digital context requires those principles to be materially embedded in design choices.

TAKE AWAY:

Trust is built as much through what technology refuses to demand as through what it provides.

Theme Five: A Companion to Situated Performance Practice

The final theme concerned the appropriate role of digital pedagogy within performer development. Participants consistently positioned the prototype as a complement to existing practice rather than a substitute for human teaching, coaching or collaborative performance environments.

Robin described the prototype as something they could use 'between jobs to keep something ticking over'. Jim wanted clearer relationships between exercises and self-tape, classical text and contemporary performance. Mari identified narration, teaching, stage work and vocal recovery as important professional contexts, while Priya valued opportunities for exploration outside formal training without suggesting that digital practice should replace rehearsal or studio learning.

The analytical significance of these accounts lay in the way participants situated learning across multiple locations and relationships. Voice development did not belong exclusively to the application, teacher or performer. It occurred across rehearsal rooms, studios, performance spaces, independent practice and professional experience. The digital resource was therefore most credible when it acknowledged itself as one component within this broader pedagogical ecology.

Future development should consequently strengthen context-specific pathways for rehearsal, self-tape, narration, recovery, touring and teaching while continuing to signpost circumstances in which human coaching or clinical expertise may be more appropriate.

This interpretation also aligns with Practice-as-Research perspectives in which knowledge develops through situated, embodied activity rather than detached instruction alone (Nelson, 2022; Smith and Dean, 2009). ASSEMBLE similarly conceptualises voice as produced through interconnected professional, embodied, social and material relationships (Azul and Quoresimo, 2022).

TAKE AWAY:

Digital pedagogy strengthens performance practice when it accompanies rather than replaces human teaching.

Synthesis of the Findings

Taken together, these themes describe five interconnected dimensions of inclusive digital voice pedagogy: **agency, collaborative expertise, adaptive practice, ethical trust and pedagogical companionship**. They should therefore not be understood as independent findings. Rather, each addresses a different aspect of how pedagogical authority is negotiated within a self-directed digital environment.

The analysis suggests that participants did not require technology to determine their goals, prove their progress or replace existing expertise. Instead, they valued a system that enabled informed choice, recognised multiple forms of knowledge, accommodated changing circumstances, respected boundaries and remained situated within the wider ecology of performer training.

The findings therefore move beyond evaluation of whether the prototype was considered usable or positively received. They begin to articulate a set of participant-informed principles concerning what inclusive digital voice pedagogy should do—and, equally importantly, what it should refrain from doing.

The detailed thematic analysis and complete evidence-to-refinement chain are provided in Appendix E, where each theme is traced through evidence, interpretation, prototype refinement, theoretical alignment and contribution.

This synthesis provides the basis for the discussion that follows, in which the five themes are considered not only as findings from a prototype evaluation but as emerging pedagogical principles for the future design of inclusive digital voice practice.

Discussion

From Five Themes to Five Participant-Informed Pedagogical Principles

The preceding findings identified five interconnected themes that characterised participants' experiences of engaging with the prototype. Considered individually, each theme illuminates an important aspect of inclusive digital voice pedagogy. Considered collectively, however, they suggest something broader. Rather than representing isolated observations about a single digital application, the themes articulate a coherent set of

participant-informed pedagogical principles concerning how inclusive digital voice pedagogy may be designed, experienced and refined.

These principles did not emerge deductively from existing theory, nor were they predetermined within the study design. Instead, they developed through iterative engagement with participant experience, reflexive thematic analysis and successive cycles of prototype refinement. Existing theoretical frameworks—including ASSEMBLE, culturally responsive pedagogy, reflective practice and Practice as Research—provided important interpretive lenses. However, the principles themselves were constructed through reflexive engagement with participants' accounts rather than predetermined by those theoretical frameworks.

Consequently, the contribution of this study extends beyond evaluation of the prototype itself. The findings suggest that participant experience can function as a source of pedagogical knowledge, enabling iterative refinement that remains theoretically informed while responding directly to the lived realities of transgender and non-binary performers.

The five principles are discussed below.

Principle One

Participant agency should remain central to vocal direction.

Across the dataset, participants consistently resisted pedagogical approaches that implied predetermined vocal destinations. Rather than seeking less guidance, participants sought greater ownership over how professional expertise was applied to their own artistic, embodied and identity-related goals. This suggests that participant agency should not be understood simply as an ethical consideration but as a foundational pedagogical principle underpinning inclusive digital voice development.

Importantly, agency was experienced through multiple design decisions rather than a single feature. Functional rather than gendered terminology, flexible pathways, participant-led goal setting and the absence of normative progression collectively communicated that performers retained authority over the meaning and direction of their own vocal development.

This principle extends culturally responsive approaches such as ASSEMBLE by illustrating how participant agency is experienced within digital learning environments. The findings therefore suggest that inclusive digital pedagogy should be designed not around predetermined vocal outcomes, but around participant-defined aspirations that remain open to revision throughout the learning process.

Principle Two

Professional expertise should work in partnership with participant knowledge.

Participants consistently demonstrated respect for professional expertise while simultaneously rejecting educational models in which expertise functioned as unquestioned authority. Requests for greater technical explanation, performer-specific pathways and deeper pedagogical rationale did not reflect dissatisfaction with guidance itself; rather, they expressed a desire for expertise that supported informed decision-making rather than prescribing correct answers.

The findings therefore challenge binary understandings that position professional knowledge and lived experience in opposition. Instead, inclusive pedagogy appears strongest when technical knowledge, embodied experience and performer context remain in dialogue with one another. This principle reinforces evidence-informed pedagogical models while emphasising that participant knowledge represents an essential component of educational expertise rather than merely a source of feedback.

Principle Three

Sustainable practice should accommodate adaptation, interruption and return.

Participants consistently rejected assumptions that effective voice practice requires uninterrupted progression. Instead, sustainable engagement emerged through flexibility, opportunities to pause, adaptation to changing professional contexts and explicit permission to return without penalty or judgement.

This principle has implications extending beyond digital interface design. It suggests that sustainability should be conceptualised pedagogically rather than behaviourally. Success is not measured by continuous engagement or completion metrics but by participants' capacity to integrate voice work into the changing rhythms of rehearsal, performance, employment, wellbeing and everyday life.

Viewed through reflective practice, interruption becomes an expected component of professional learning rather than evidence of failure. Inclusive digital pedagogy therefore supports performers by responding to fluctuating needs rather than demanding continuous compliance.

Principle Four

Ethical trust should be enacted through pedagogical restraint.

Participants repeatedly associated trust with what the prototype deliberately chose not to do. The absence of unnecessary surveillance, automated judgement, compulsory disclosure and evaluative feedback contributed directly to participants' willingness to engage authentically with the learning environment.

This finding suggests that ethics within digital pedagogy extends beyond institutional approval, privacy policies or regulatory compliance. Ethical practice became visible through everyday interactions with the interface itself. Decisions regarding data collection, language, transparency and technological intervention were experienced simultaneously as ethical and pedagogical decisions.

Consequently, inclusive digital pedagogy may benefit from embracing restraint as a positive design principle. Technology need not exercise maximal capability to be educationally effective. Instead, trust develops when systems demonstrate humility regarding the limits of technological intervention.

Principle Five

Digital pedagogy should accompany rather than replace situated performance practice.

Participants consistently positioned the prototype alongside existing relationships with teachers, directors, speech and language therapists and fellow performers. Rather than expecting digital pedagogy to replace these relationships, participants valued its capacity to sustain exploration between rehearsals, performances and formal training.

This principle situates digital learning within a broader ecology of performer development. Voice does not develop exclusively through applications, classrooms or rehearsal rooms, but across multiple interconnected contexts. Digital pedagogy therefore becomes most

valuable when it acknowledges this wider ecology and supports meaningful transitions between formal instruction, independent practice and professional performance.

Rather than presenting technology as an alternative to human teaching, the findings suggest that inclusive digital pedagogy should strengthen the relationships already sustaining performers' ongoing artistic development.

Bringing the Principles Together

Although presented separately, these five principles should not be understood as independent recommendations. Each describes a different dimension of the same pedagogical philosophy.

- Participant agency establishes who directs learning.
- Collaborative expertise explains how knowledge is negotiated.
- Adaptive practice describes how learning unfolds across time.
- Ethical restraint creates the conditions through which trust develops.
- Pedagogical companionship situates digital learning within the wider ecology of performer development.

Taken together, these principles suggest that inclusive digital voice pedagogy is characterised not by technological sophistication alone, but by the quality of the relationships it supports between participants, practitioners, knowledge and practice.

These principles were not treated solely as conceptual outcomes but were translated into successive refinements of the developing artefact. Participant responses informed changes to the prototype, including expanded digital exercise-card packs, greater pedagogical rationale, more context-specific performer pathways, clearer privacy and data-handling information, and strengthened opportunities for adaptation, recovery and reflective practice. The iterative process therefore moved beyond participant evaluation of an existing design: experience generated interpretation, interpretation informed pedagogical principles, and those principles were subsequently returned to practice through artefact refinement. In this way, the developing prototype remained both an outcome of the research and an ongoing site through which its emerging knowledge could be tested and materialised.

Contribution to Knowledge

This study contributes to knowledge in two interconnected ways.

First, it proposes five participant-informed pedagogical principles that extend existing discussions surrounding inclusive digital voice pedagogy for transgender and non-binary performers. Rather than replacing established frameworks such as ASSEMBLE or culturally responsive pedagogy (Azul et al., 2022; Azul and Quoresimo, 2022), these principles demonstrate how those theoretical perspectives may be experienced, interpreted and operationalised within the design of a digital learning environment.

Second, the study demonstrates a transparent, repeatable practitioner-research methodology through which participant experience can be transformed into pedagogical refinement. Grounded in reflexive thematic analysis (Braun and Clarke, 2021), the project moves systematically from participant evidence, through reflexive interpretation, prototype refinement and theoretical alignment. In doing so, it illustrates how lived experience can function not simply as evaluative feedback but as a source of pedagogical knowledge capable of informing future educational design.

In this respect, the study contributes not only to the development of a prototype application, but also to wider conversations concerning participatory design, reflective practitioner research, and the development of ethical, inclusive, and sustainable digital pedagogies (Ghaye, 2010; 2011; Nelson, 2022).

Conclusion

This study set out to explore how participant experience could inform the iterative development of an ethical, inclusive and sustainable digital voice pedagogy for transgender and non-binary actors. Rather than evaluating the prototype solely in terms of usability or technical functionality, the research sought to understand how participants experienced engaging with the application and how those experiences could contribute to its ongoing pedagogical refinement. In doing so, the project positioned participant

experience not simply as evaluative feedback but as a legitimate source of pedagogical knowledge.

Across three phases of participant engagement, the findings demonstrated that participants consistently valued approaches that prioritised agency, collaborative expertise, adaptive practice, ethical trust and digital learning that complemented rather than replaced existing performer training. Although each theme illuminated a distinct aspect of participant experience, collectively they revealed a coherent pedagogical philosophy grounded in respect for participant autonomy, professional dialogue and sustainable artistic development. The study therefore moved beyond evaluating a prototype towards identifying five participant-informed pedagogical principles capable of informing future approaches to inclusive digital voice pedagogy.

These principles do not seek to replace existing theoretical frameworks. Instead, they extend and operationalise concepts articulated within culturally responsive voice pedagogy and already established frameworks including ASSEMBLE (Azul *et al.*, 2022; Azul and Quoresimo, 2022), reflective practice (Ghaye, 2010; 2011) and Practice as Research (Nelson, 2022) by demonstrating how such principles are recognised, negotiated and experienced by transgender and non-binary performers within a digital learning environment. The findings therefore reinforce the importance of designing technologies that support participants in defining their own vocal goals, engaging with professional expertise collaboratively and developing sustainable practices responsive to the realities of contemporary performance.

An important outcome of the project was the recognition that reflection functioned not merely as an evaluative exercise but as a methodology for pedagogical development, consistent with action-oriented accounts of reflective practice (Ghaye, 2010; 2011). Grounded in reflexive thematic analysis (Braun and Clarke, 2021), a transparent analytical sequence moving from participant evidence to interpretation, prototype refinement and theoretical alignment enabled participant experiences to inform successive design decisions while remaining anchored within relevant scholarship. This repeatable analytical process represents a significant outcome of the study, demonstrating how practitioner-research can integrate lived experience and theoretical knowledge to produce meaningful educational innovation.

The research also produced significant development in my own practice as a practitioner-researcher, directly advancing the learning outcomes identified at the outset of the project. Through participatory evaluation and iterative artefact refinement, I developed greater methodological confidence in qualitative interviewing, reflexive thematic analysis and design-based inquiry, alongside a more critical awareness of my insider positionality as both practitioner and prototype designer. In particular, the study required me to interrogate the distinction between pedagogical intention and participant experience, demonstrating that theoretically inclusive design cannot be assumed to remain inclusive when translated into practice. This strengthened my understanding of ethically grounded, participatory pedagogical development and extended my professional practice beyond the design of voice exercises towards a more reflexive approach in which participant knowledge actively informs pedagogical decision-making.

The project also highlights the importance of viewing ethics as an ongoing pedagogical practice rather than a procedural requirement completed before data collection begins. Participants repeatedly described experiencing ethical design through everyday interactions with the prototype, including opportunities for choice, transparent communication, appropriate technological restraint and respect for personal boundaries. These findings suggest that ethical decision-making should remain visible throughout the design of digital pedagogies rather than existing solely within institutional governance processes, extending culturally responsive principles of respect, humility and responsiveness into the material design of digital learning environments (Azul *et al.*, 2022; Azul and Quoresimo, 2022).

Several limitations should be acknowledged. The study was undertaken with a relatively small group of transgender and non-binary actors engaging with a prototype rather than a fully developed application. The research therefore prioritises depth of participant experience over broad generalisability. Similarly, the project focused upon one specific context — voice pedagogy for transgender and non-binary performers — and future research will be required to explore how these principles might be adapted across different populations, educational settings and creative disciplines. The research therefore does not claim statistical generalisability; instead, consistent with the contextual and interpretative orientation of reflexive thematic analysis, it offers situated insights that may inform future inquiry and practice (Braun and Clarke, 2021).

Future development of the prototype should continue expanding performer-specific pathways, strengthening pedagogical rationale, refining accessibility and enhancing opportunities for contextualised practice while preserving the participant-centred philosophy consistently valued throughout the study. Beyond the application itself, further research might explore longer-term engagement, wider participant groups, collaborative implementation within performer training programmes or interdisciplinary partnerships between voice practitioners, performers and digital designers.

Ultimately, this study demonstrates that inclusive digital voice pedagogy is strengthened when participant experience is positioned as a driver of pedagogical development rather than simply a measure of pedagogical success. The research suggests that meaningful innovation emerges through sustained dialogue between participants, practitioners, theory and practice, enabling digital learning environments to evolve responsively rather than prescriptively.

More broadly, the project proposes a participant-informed and repeatable practitioner-research methodology through which lived experience can be systematically transformed into principled pedagogical refinement. While developed within the context of gender-affirming voice pedagogy, this methodological approach may also offer value for wider practitioner-research seeking to develop ethical, inclusive and sustainable educational practices through iterative engagement with participant experience.

Overall, a key insight from this investigation is that inclusive digital voice pedagogy is strengthened when technology supports performer agency rather than directing performer identity.

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APPENDIX A — Research Ethics and Participant Documentation

RA-01 Participant Recruitment Invitation

Participant Recruitment Invitation

University of Wales Trinity Saint David

Master of Arts (Voice Pedagogy)

Module 6 – Practitioner Research Project

Researcher

Laura Newton-Harris

MA Voice Pedagogy Candidate

University of Wales Trinity Saint David

Email: 2319576@student.uwtsd.ac.uk

Invitation to Participate in Research

Participatory exploration, evaluation and pedagogical refinement of a prototype inclusive digital voice development application designed to support sustainable, identity-affirming vocal practice for transgender and non-binary actors.

Are you a transgender or non-binary actor who is exploring, developing or refining a voice that feels authentic to your gender identity?

You are warmly invited to participate in a postgraduate research study exploring participant experiences of a prototype digital voice development application.

Developed as part of a Master's degree in Voice Pedagogy at the University of Wales Trinity Saint David, this study explores how digital voice pedagogy may better support authentic, sustainable and identity-affirming voice development for transgender and non-binary performers.

At the heart of this research is the simple but significant belief that the people best placed to inform and shape future research such as this are those with lived experience and knowledge.

Your lived experience, creative practice and personal relationship with your voice are central to this study.

Rather than positioning participants simply as research subjects, this study invites them to contribute actively to the evaluation and refinement of the prototype, with their

Participant Information Sheet

University of Wales Trinity Saint David

Master of Arts (Voice Pedagogy)

Researcher

Laura Newton-Harris

MA Voice Pedagogy Candidate

University of Wales Trinity Saint David

Email: 2319576@student.uwtsd.ac.uk

Participant Information Sheet

Exploring Participant Experiences of a Prototype Digital Voice Development Application

Thank you for considering participation in this research.

Before deciding whether to take part, please read this information carefully.

It explains the purpose of the study, what participation involves, how your information will be used and your rights as a participant.

What is the purpose of the study?

This study explores how transgender and non-binary actors experience engaging with a prototype digital voice development application.

The project has been developed as part of a Master's degree in Voice Pedagogy.

Voice is closely connected with communication, identity, embodiment and performance.

Whilst increasing numbers of transgender and non-binary people are accessing digital voice resources, relatively little research has explored how performers themselves experience these approaches.

This study seeks to address that gap.

Rather than evaluating participants or measuring vocal performance, the research investigates how digital voice pedagogy may support authentic, sustainable and identity-affirming voice development.

Participant Consent Form

University of Wales Trinity Saint David
Master of Arts (Voice Pedagogy)
Module 6 – Practitioner Research Project

Researcher: Laura Newton-Harris
MA Voice Pedagogy Candidate
University of Wales Trinity Saint David

Email: 2319576@student.uwtsd.ac.uk

Participant Consent Form

Exploring Participant Experiences of a Prototype Digital Voice Development Application

Please read each statement carefully before ticking the boxes.

- ☐ I confirm that I am aged 18 years or over.
- ☐ I confirm that I identify as transgender or non-binary.
- ☐ I confirm that I am an actor or performer (professional, emerging or in training).
- ☐ I confirm that I am exploring, developing or refining a voice that feels authentic to my gender identity.
- ☐ I have read and understood the Participant Information Sheet.
- ☐ I have had the opportunity to ask questions.
- ☐ I understand that participation is entirely voluntary.
- ☐ I understand that I may withdraw from the study without giving a reason.
- ☐ I understand that interviews will be audio-recorded.
- ☐ I understand how my personal information will be stored and protected.
- ☐ I understand that anonymised quotations may appear within the dissertation and future academic publications.

RA-04 — Pre-Engagement Semi-Structured Interview Schedule

University of Wales Trinity Saint David
Master of Arts (Voice Pedagogy)
Module 6 – Practitioner Research Project

Researcher: Laura Newton-Harris
MA Voice Pedagogy Candidate
University of Wales Trinity Saint David

Email: 2319576@student.uwtsd.ac.uk

Pre-Engagement Semi-Structured Interview Schedule

Research Project

Participatory exploration, evaluation and pedagogical refinement of a prototype inclusive digital voice development application designed to support sustainable, identity-affirming vocal practice for transgender and non-binary actors.

Purpose

This pre-engagement interview is designed to explore participants' existing relationships with voice and performance; previous experiences of voice development or training; understandings of authenticity and sustainability; experiences and expectations of digital learning; and perceptions of supportive and inclusive voice practice prior to engagement with the prototype.

The interview is semi-structured and should remain conversational and participant-led. The questions below are core prompts rather than a rigid questionnaire. Optional probes may be used where relevant and need not be asked of every participant.

1. Voice and Self

To begin, could you tell me a little about your relationship with your voice as it is now?

Optional probes:

- What does your voice mean to you?
- Are there particular situations in which you feel especially aware of your voice?
- Has your relationship with your voice changed over time?
- Is there anything about your relationship with your voice that feels particularly important for me to understand before we begin?

RA-05 — Post-Engagement Semi-Structured Interview Schedule

University of Wales Trinity Saint David
Master of Arts (Voice Pedagogy)
Module 6 – Practitioner Research Project

Researcher: Laura Newton-Harris
MA Voice Pedagogy Candidate
University of Wales Trinity Saint David

Email: 2319576@student.uwtsd.ac.uk

Post-Engagement Semi-Structured Interview Schedule

Research Project

Participatory exploration, evaluation and pedagogical refinement of a prototype inclusive digital voice development application designed to support sustainable, identity-affirming vocal practice for transgender and non-binary actors.

Purpose

This post-engagement interview is designed to explore participants' experiences of engaging with the prototype digital voice-development application, including its usability, pedagogical clarity, emotional and identity-related experience, relevance to performance practice, perceived sustainability, and areas for refinement.

The interview is semi-structured and should remain conversational and participant-led. The questions below are core prompts rather than a rigid questionnaire. Optional probes may be used where relevant and need not be asked of every participant.

The purpose is to understand participants' experiences of the prototype rather than to assess their voice, performance or use of the application. Critical, mixed and negative responses are as valuable to the research as positive experiences.

1. Overall experience

Thinking back over the time you've spent with the prototype, how would you describe your overall experience of using it?

Optional probes:

- What stands out most when you think back over the experience?
- Was anything different from what you expected before you began?
- Were there particular moments or features you found yourself remembering or returning to?
- Did your experience of the prototype change over the two to three weeks?

APPENDIX B — Research Instruments: Digital Voice Training Prototype

The following figures document the digital voice training prototype used by participants during Phase 2 of the research. The screenshots are presented in participant-flow order and illustrate the onboarding sequence, accessibility and safety provision, prototype home interface, exercise library, guided session structure and selected voice explorations.

The prototype was designed as a non-clinical, self-directed pedagogical resource; the images reproduce the interface as presented during the research period.

Note: Screenshots are reproduced at reduced scale for appendix presentation. Overlapping views are retained where necessary to document scrollable interface content.

Visual sequence

- Onboarding, autonomy, safety and accessibility
- Home interface and reflective check-in
- Safety & Care and research/data information
- Exercise Library and five exploration packs
- Guided session structure and selected exercises
- Cool-down and closure

Figure B.1. Prototype onboarding: introductory framing and non-prescriptive approach.

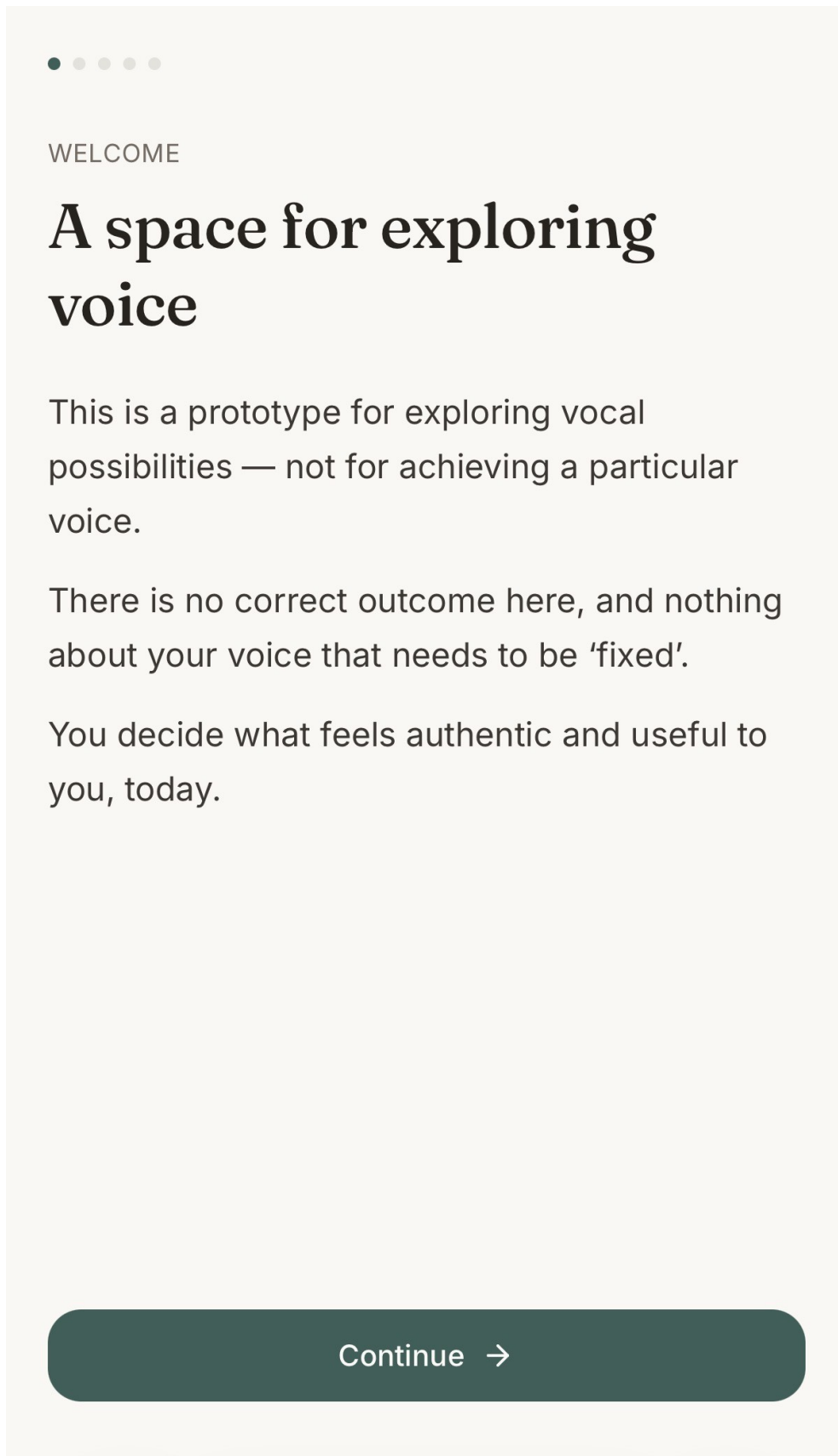


Figure B.2. Prototype onboarding: session structure, duration and flexible pacing.



HOW IT WORKS

A simple, flexible structure

Each session moves gently through: check-in → warm-up → focused exploration → cool-down → optional reflection.

Sessions are short — around 8 to 12 minutes — and you can take them at your own pace.

← Back

Continue →

Figure B.3. Prototype onboarding: participant choice, autonomy and permission to pause, adapt or stop.

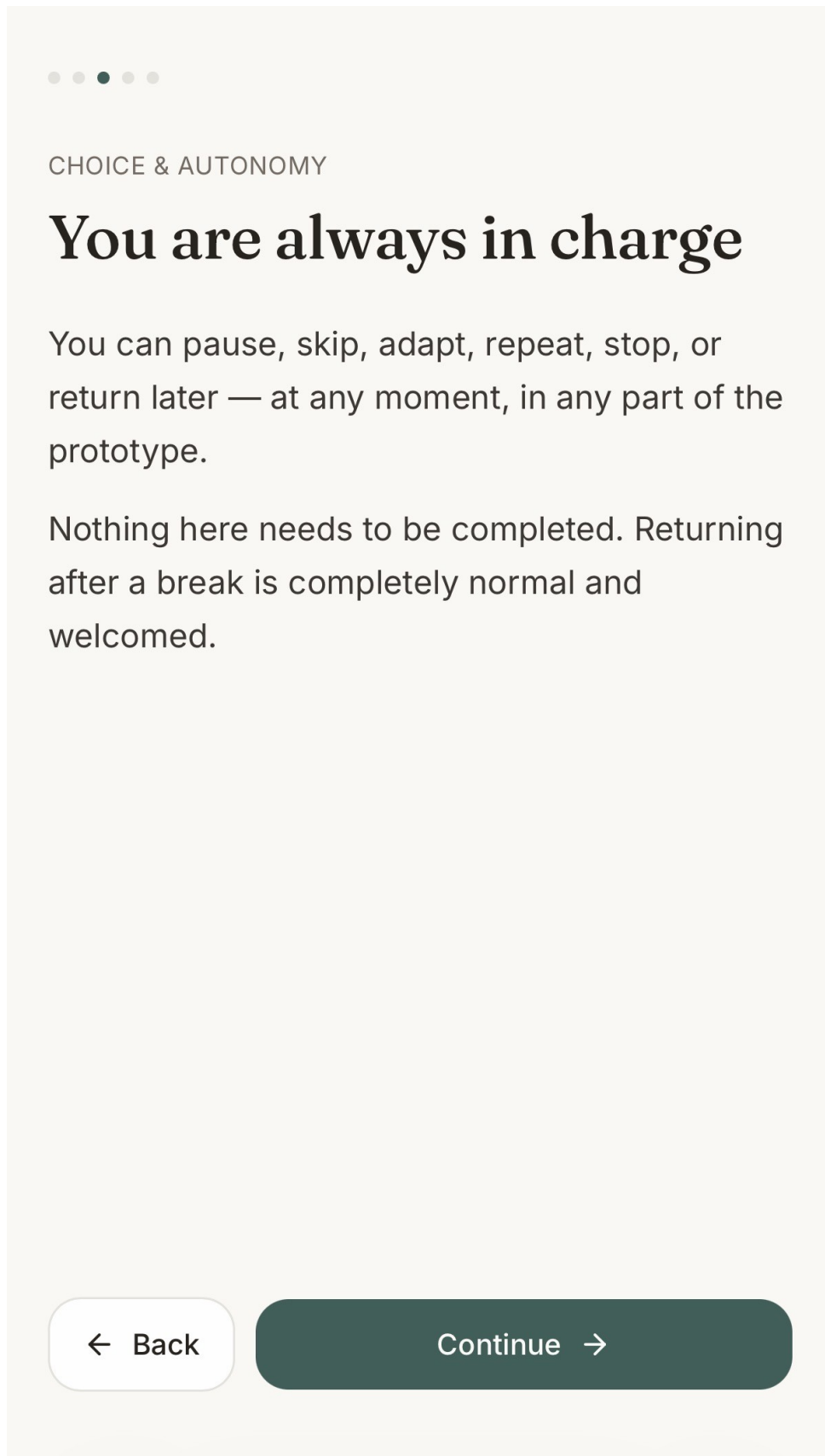


Figure B.4. Prototype onboarding: safety and care guidance.

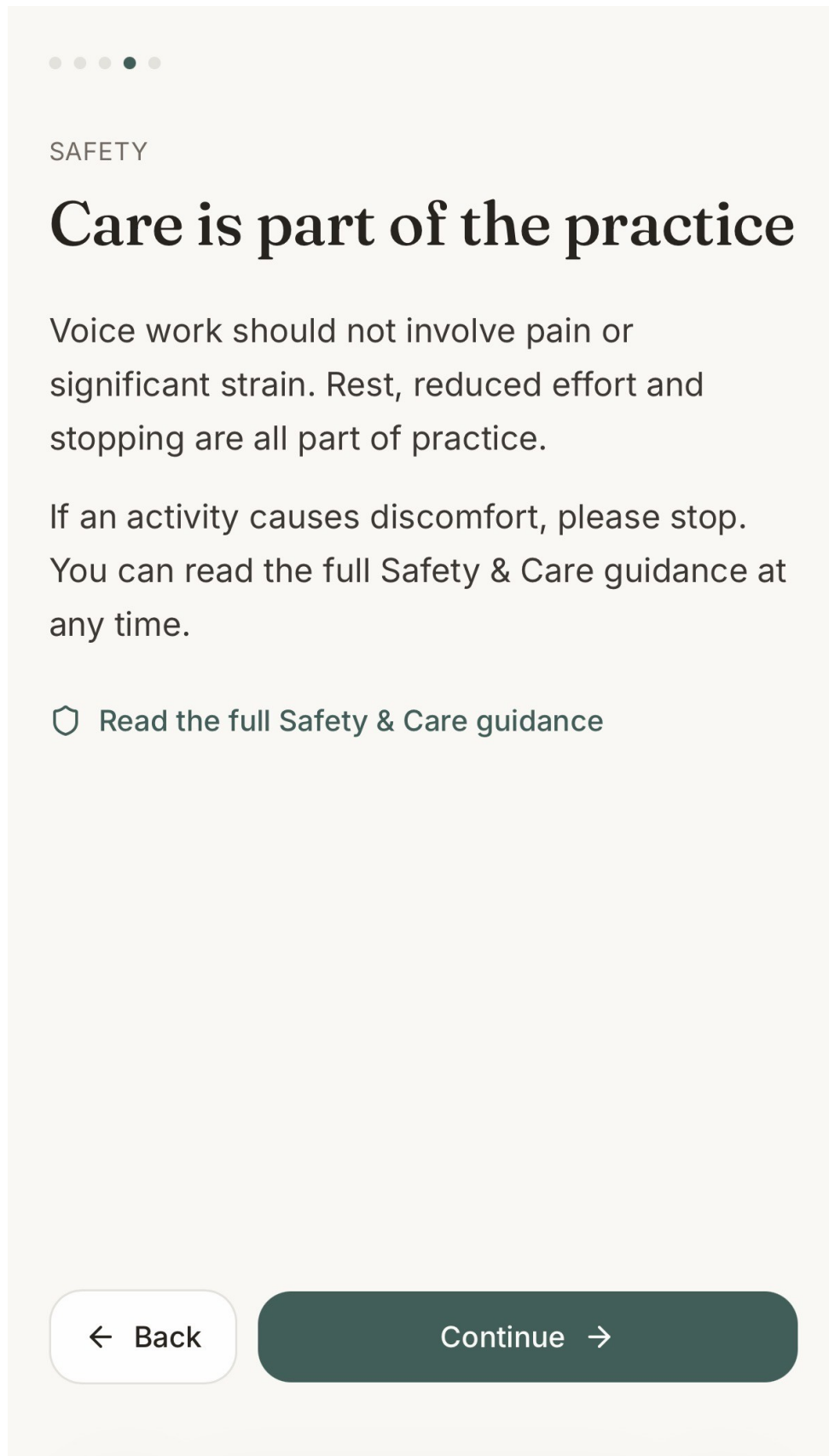
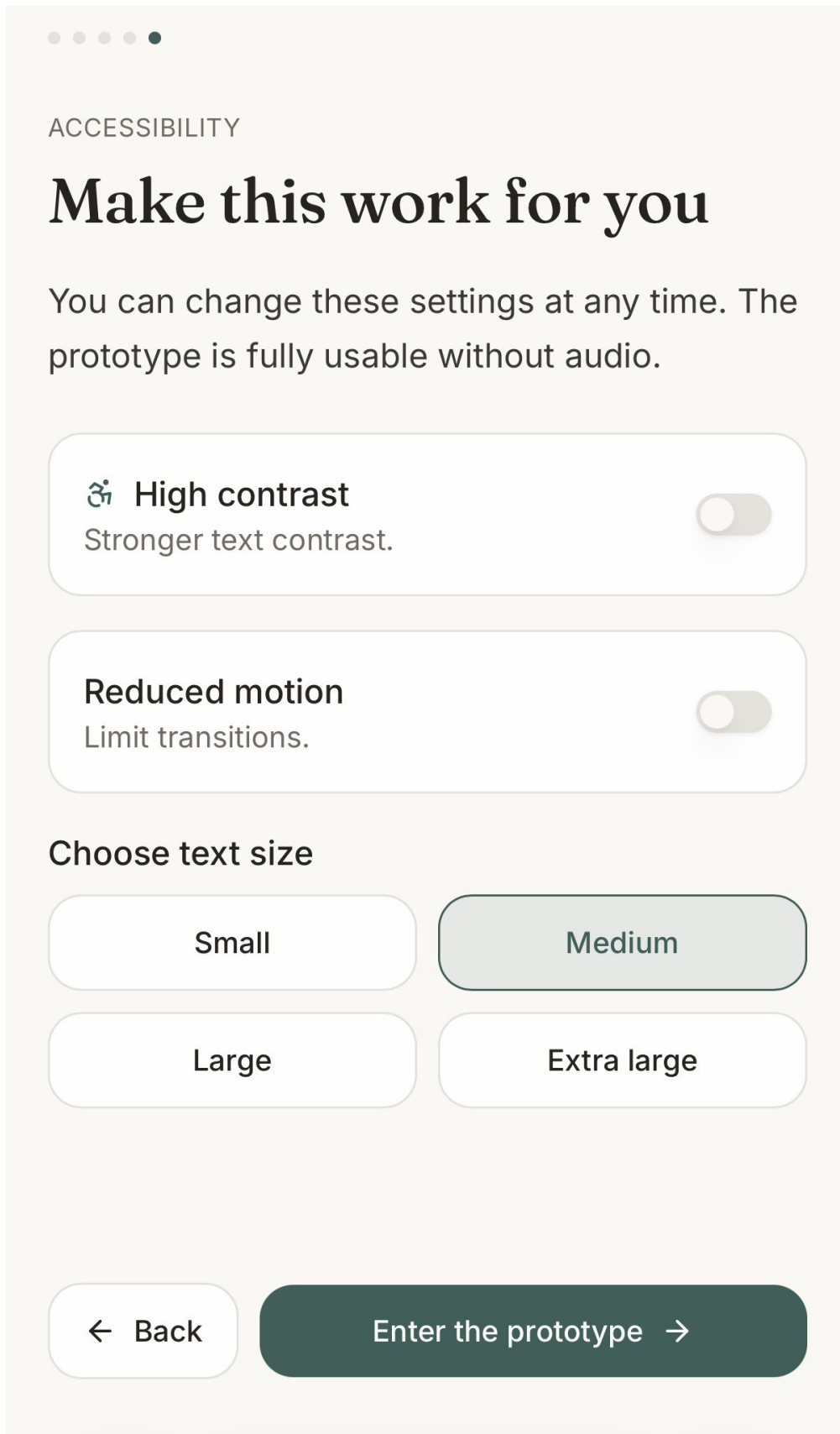


Figure B.5. Prototype onboarding: accessibility settings and text-size options.



The image shows a mobile app onboarding screen for accessibility settings. At the top, there are five dots, with the fifth one filled, indicating the current step. Below this, the word 'ACCESSIBILITY' is written in a small, uppercase font. The main heading is 'Make this work for you' in a large, bold, serif font. A paragraph follows: 'You can change these settings at any time. The prototype is fully usable without audio.' There are two toggle switches. The first is for 'High contrast' with a description 'Stronger text contrast.' and is currently turned off. The second is for 'Reduced motion' with a description 'Limit transitions.' and is also turned off. Below these, the section 'Choose text size' is followed by four buttons: 'Small', 'Medium' (which is highlighted with a dark border and background), 'Large', and 'Extra large'. At the bottom, there are two buttons: a 'Back' button with a left arrow and a 'Enter the prototype' button with a right arrow. The 'Enter the prototype' button is dark green with white text.

● ● ● ● ●

ACCESSIBILITY

Make this work for you

You can change these settings at any time. The prototype is fully usable without audio.

 **High contrast**
Stronger text contrast. ☐

Reduced motion
Limit transitions. ☐

Choose text size

Small

Medium

Large

Extra large

← Back

Enter the prototype →

Figure B.6. Prototype home screen: guided session entry and optional self-reflective check-in.

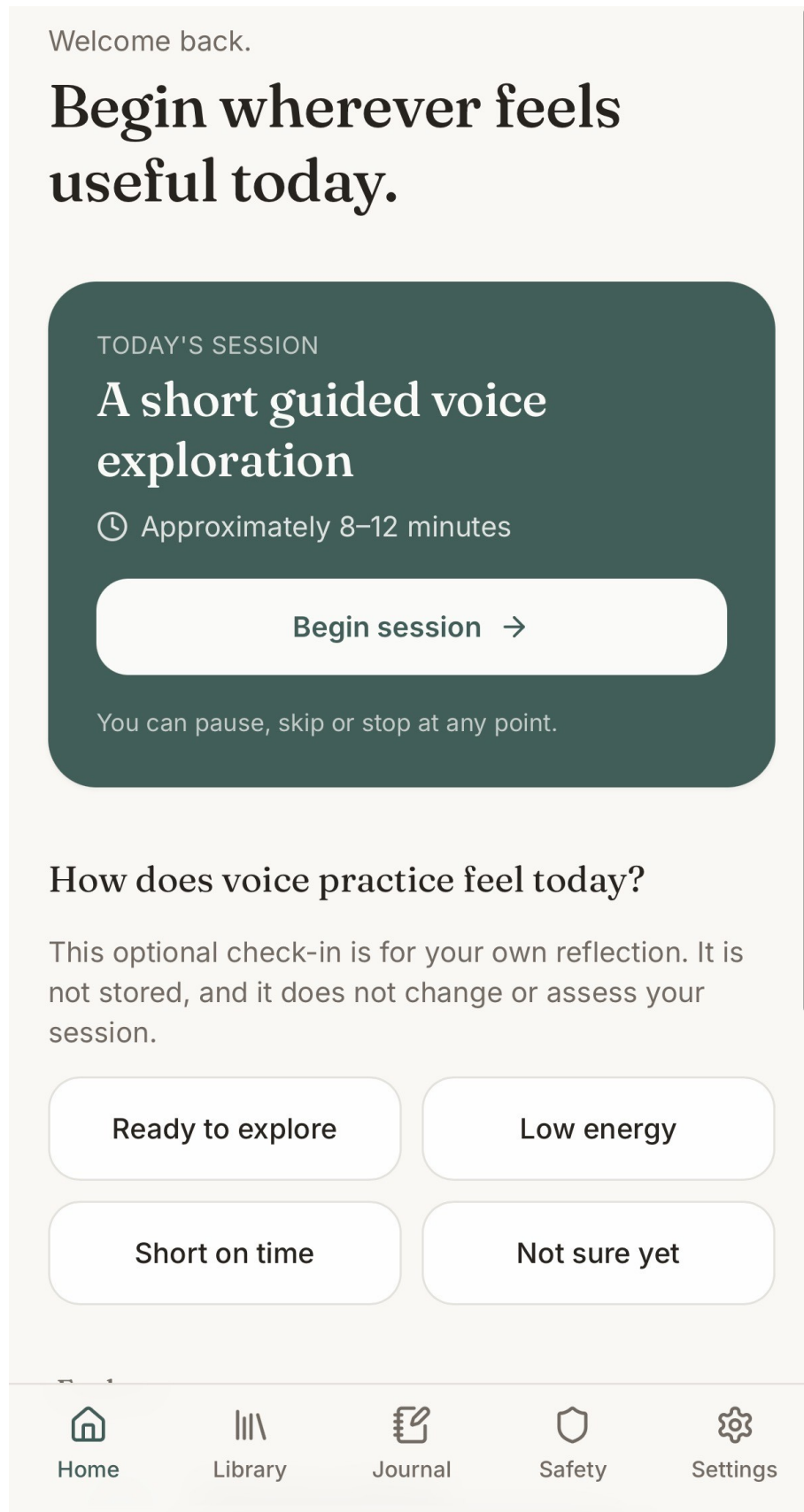


Figure B.7. Prototype home screen: exercise library, reflective journal, Safety & Care and research-context navigation.

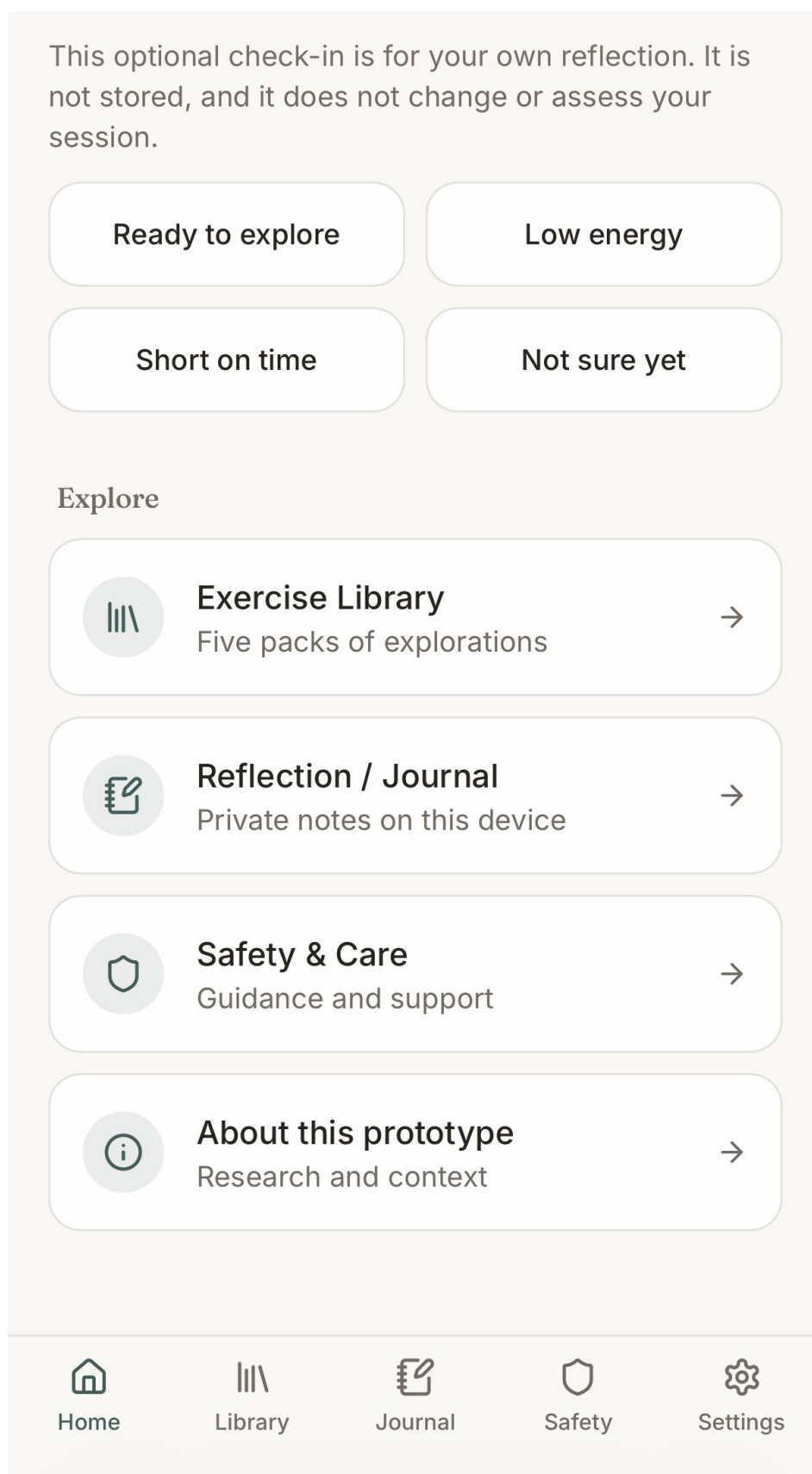


Figure B.8. Safety & Care guidance: embodied listening and rest as part of practice.

Safety & Care

Care is part of voice work, not an extra. These notes are here to support you, not to alarm you.



Listen to your voice and body

Voice work is embodied work. The voice and body give useful information all the time — through sensation, ease, effort, tiredness and mood.

You are invited to notice these signals rather than push past them.



Rest is part of practice

Rest is not a break from voice work — it is part of it. Reduced effort, shorter sessions and returning another day are all valid ways to practise.



Home



Library



Journal



Safety



Settings

Figure B.9. Safety & Care guidance: permission to stop and acknowledgement of emotional responses.

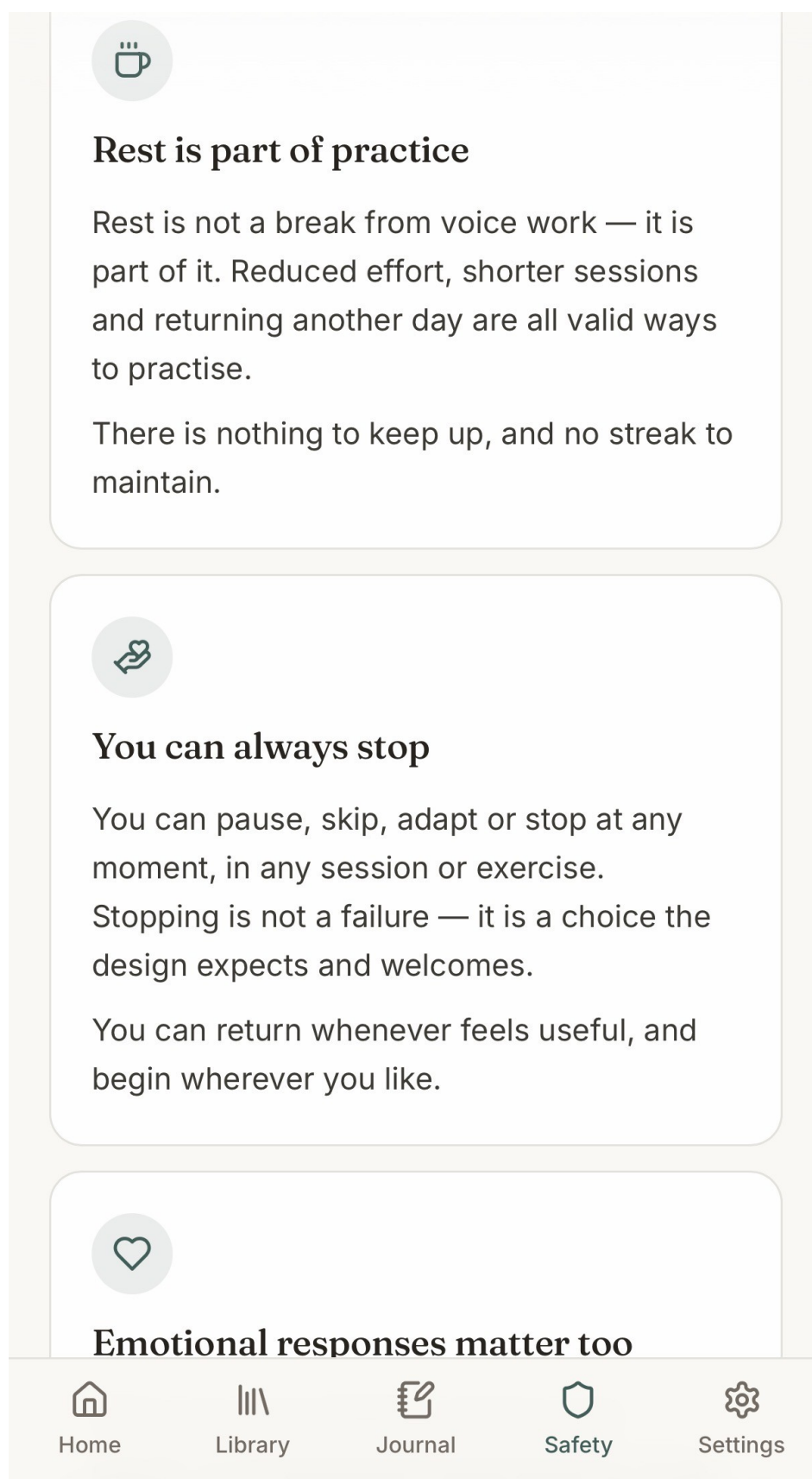


Figure B.10. Safety & Care guidance: boundaries for continuing practice and non-clinical scope.

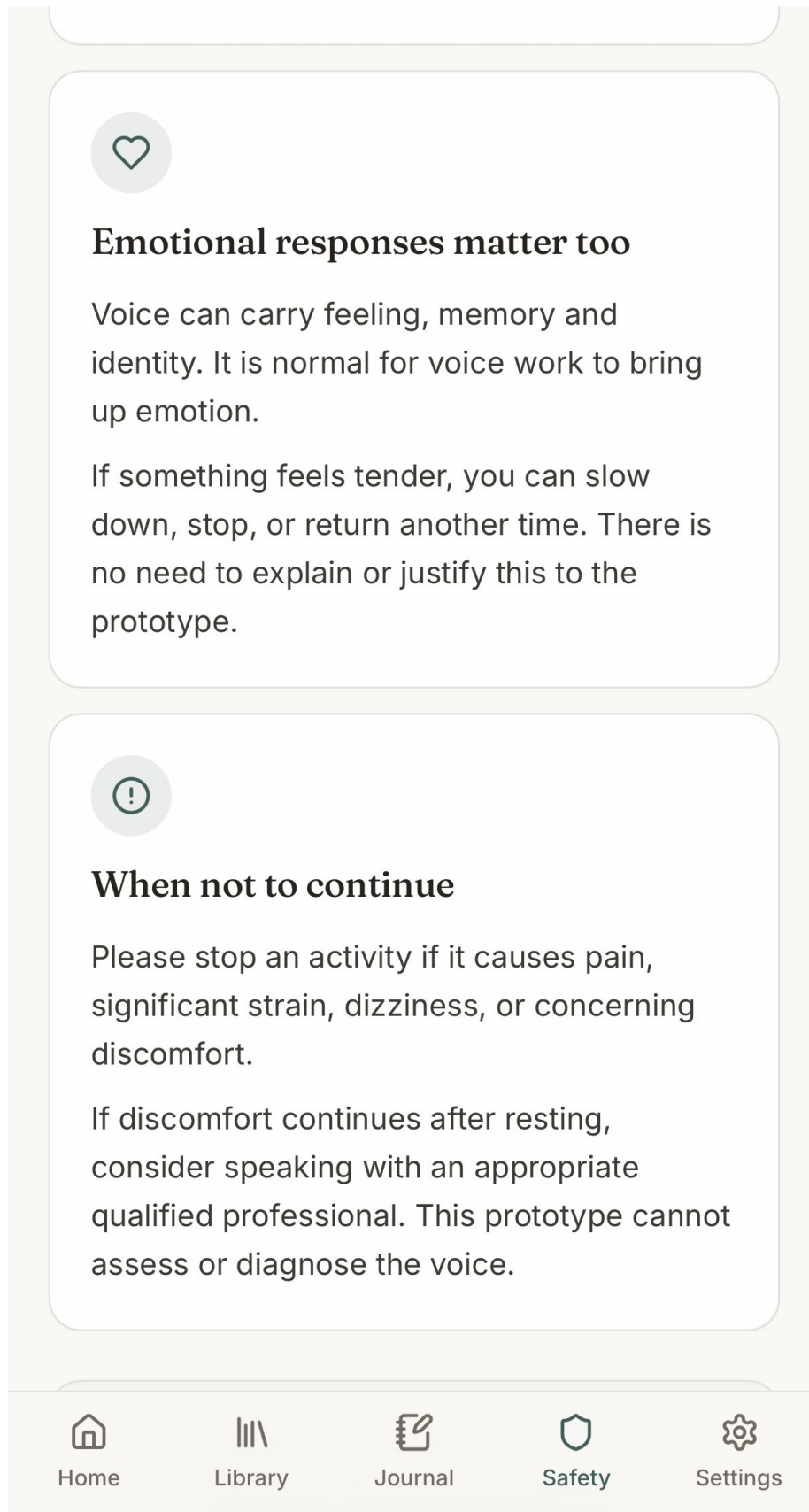


Figure B.11. Safety & Care guidance: educational scope and link to further prototype information.

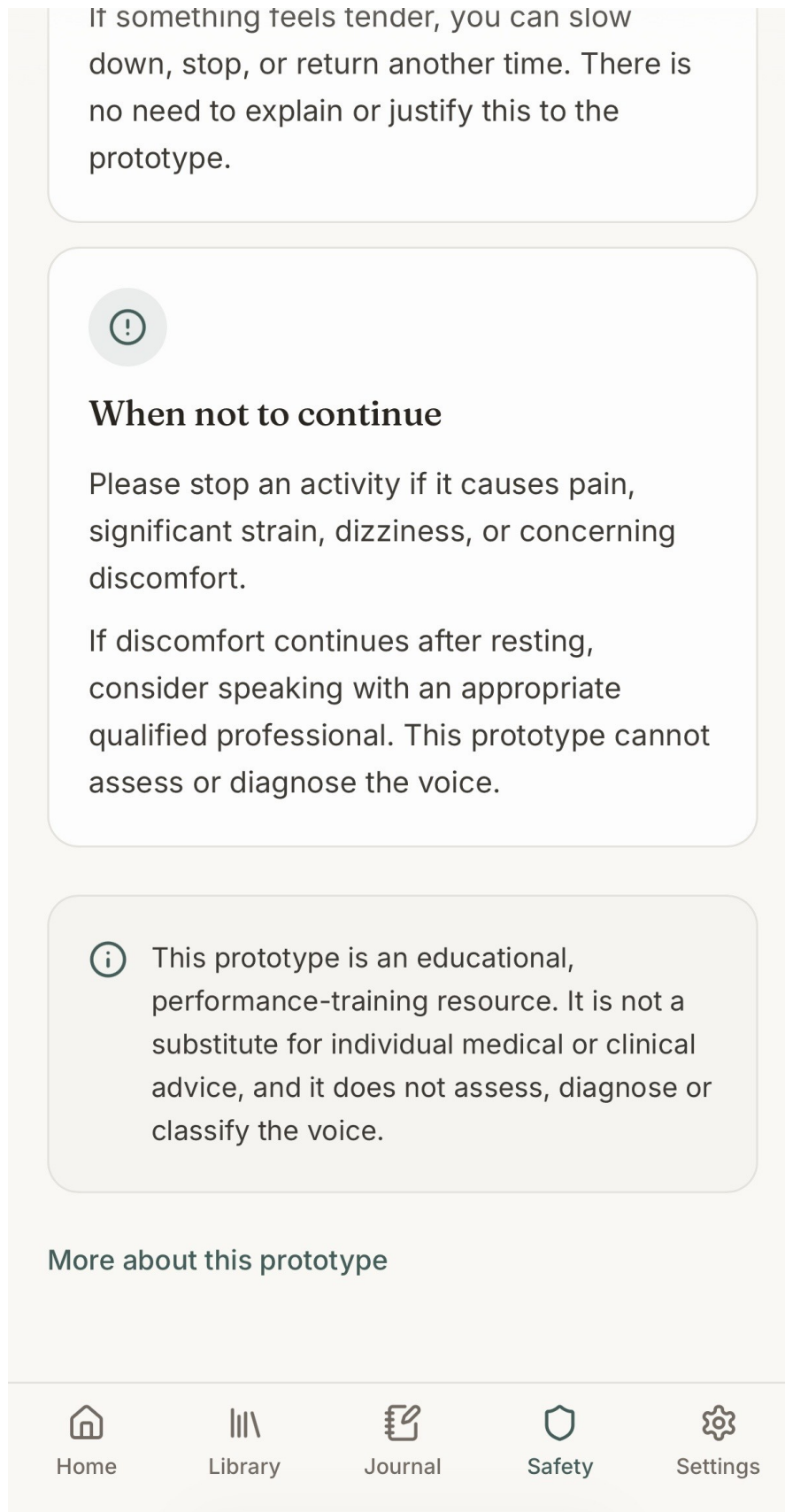


Figure B.12. About this prototype: research context, non-clinical framing and participant autonomy.

About this prototype

This is a postgraduate research prototype, created as part of an MA Voice Pedagogy practitioner research project. It explores how inclusive voice pedagogy is experienced when translated into a self-directed digital environment, with trans and non-binary actors and performers.

It is a non-clinical educational and performance resource. It does not assess whether a voice is 'correct', and it does not diagnose, classify or score the voice in any way.

You determine your own vocal goals. The prototype offers invitations to notice, explore and choose — not instructions to achieve a particular vocal outcome.

This prototype is being evaluated through an approved postgraduate research project. Research participants receive separate information about the study and provide informed consent before taking part.

The design is intentionally restrained: it does not include voice recording, acoustic analysis,



Home



Library



Journal



Safety



Settings

Figure B.13. About this prototype: researcher information, data/privacy statements and limits of data collection.

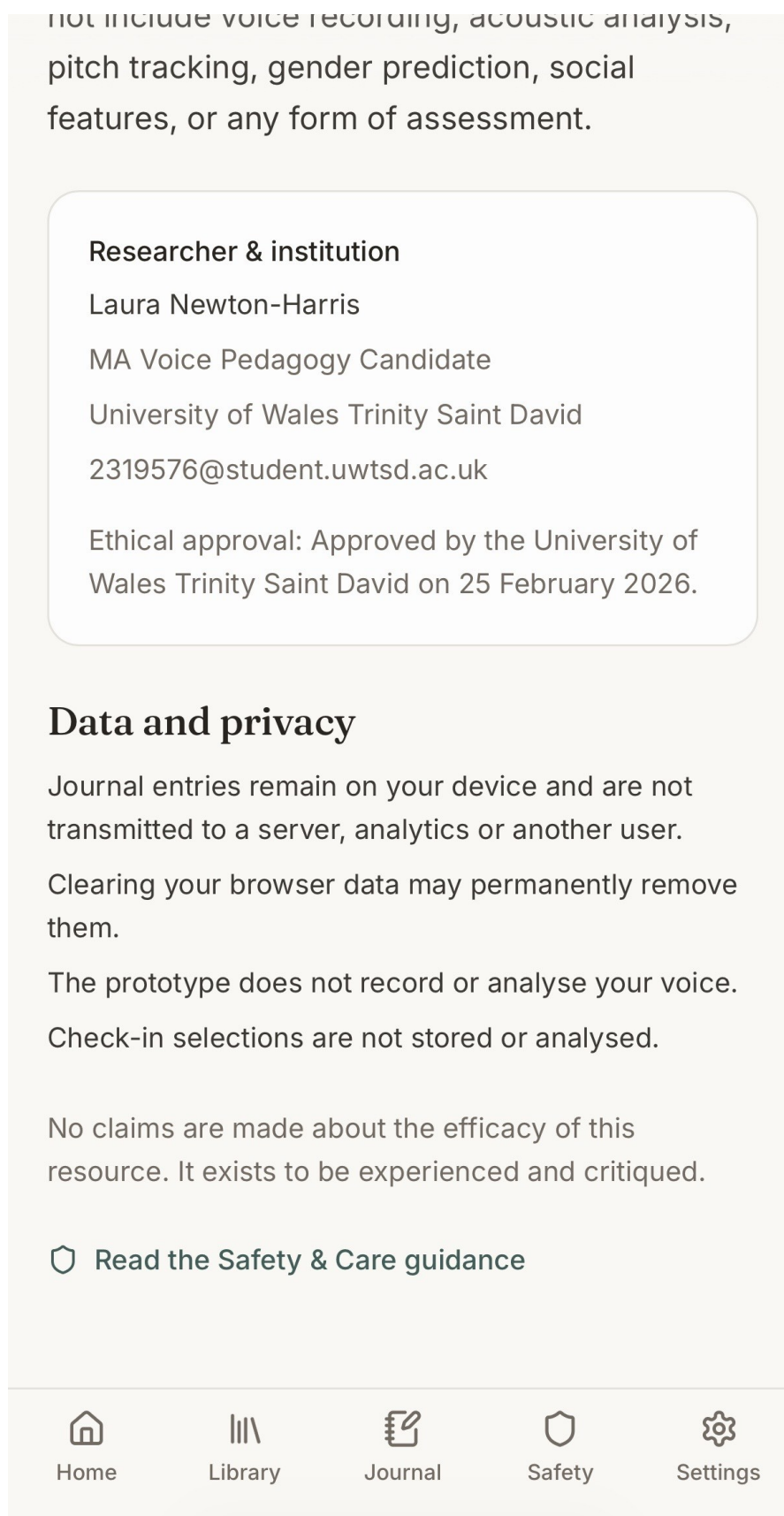


Figure B.14. Exercise Library: overview of Resonance Options and Placement & Texture packs.

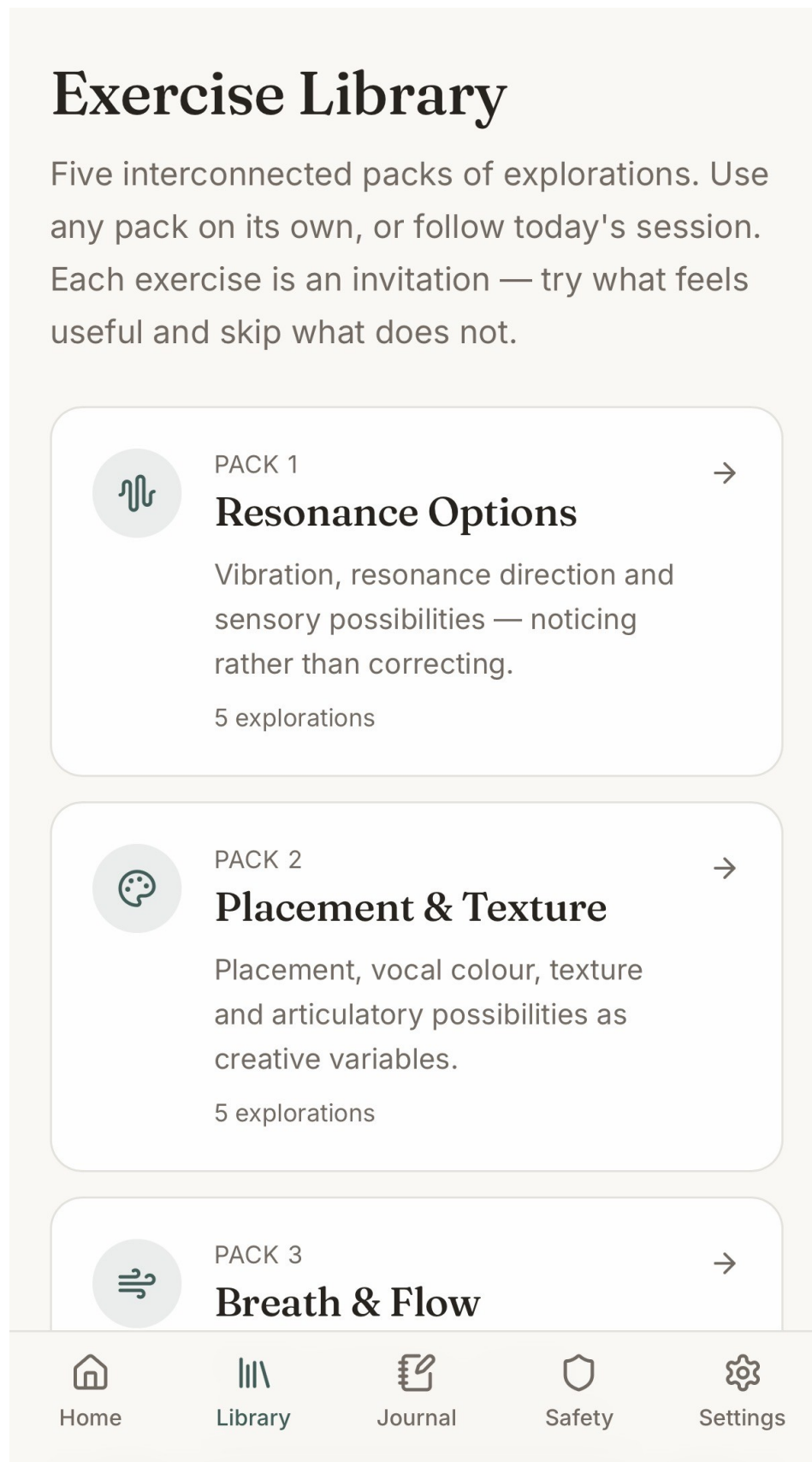


Figure B.15. Exercise Library: Breath & Flow, Intonation & Expressivity and Embodied Voice packs.

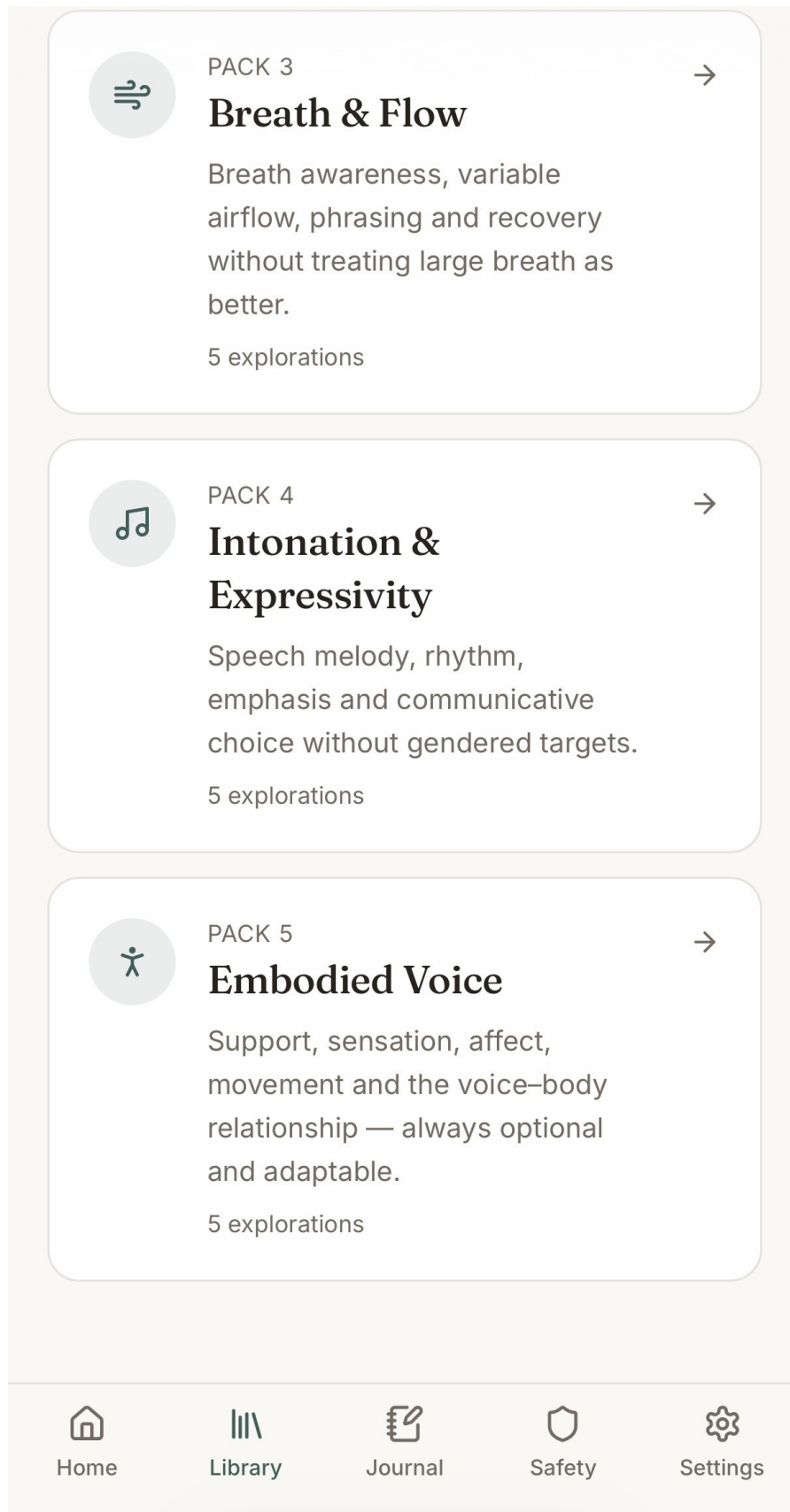


Figure B.16. Resonance Options pack: overview of explorations and indicative durations.

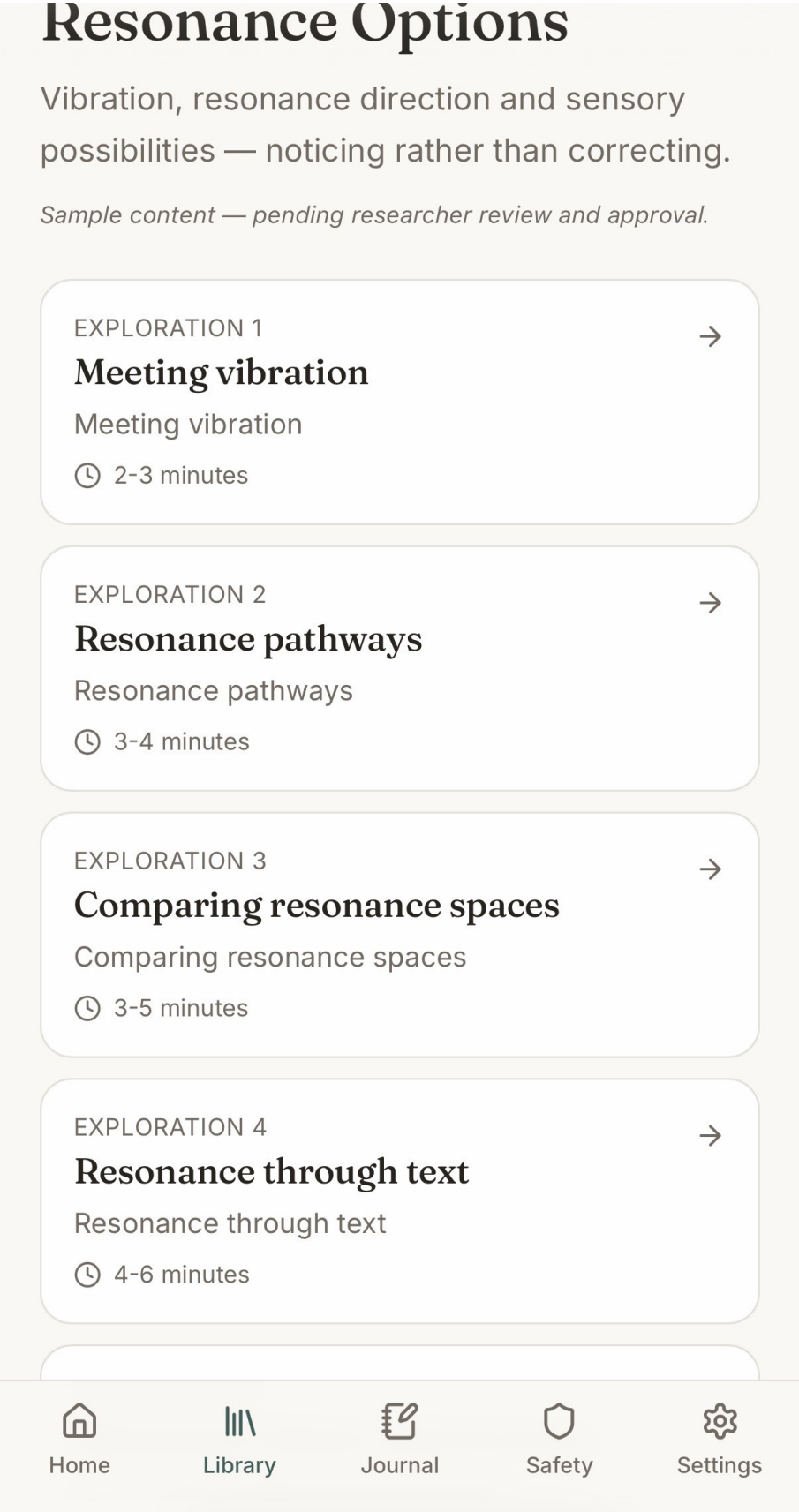


Figure B.17. Resonance Options pack: complete exploration list.

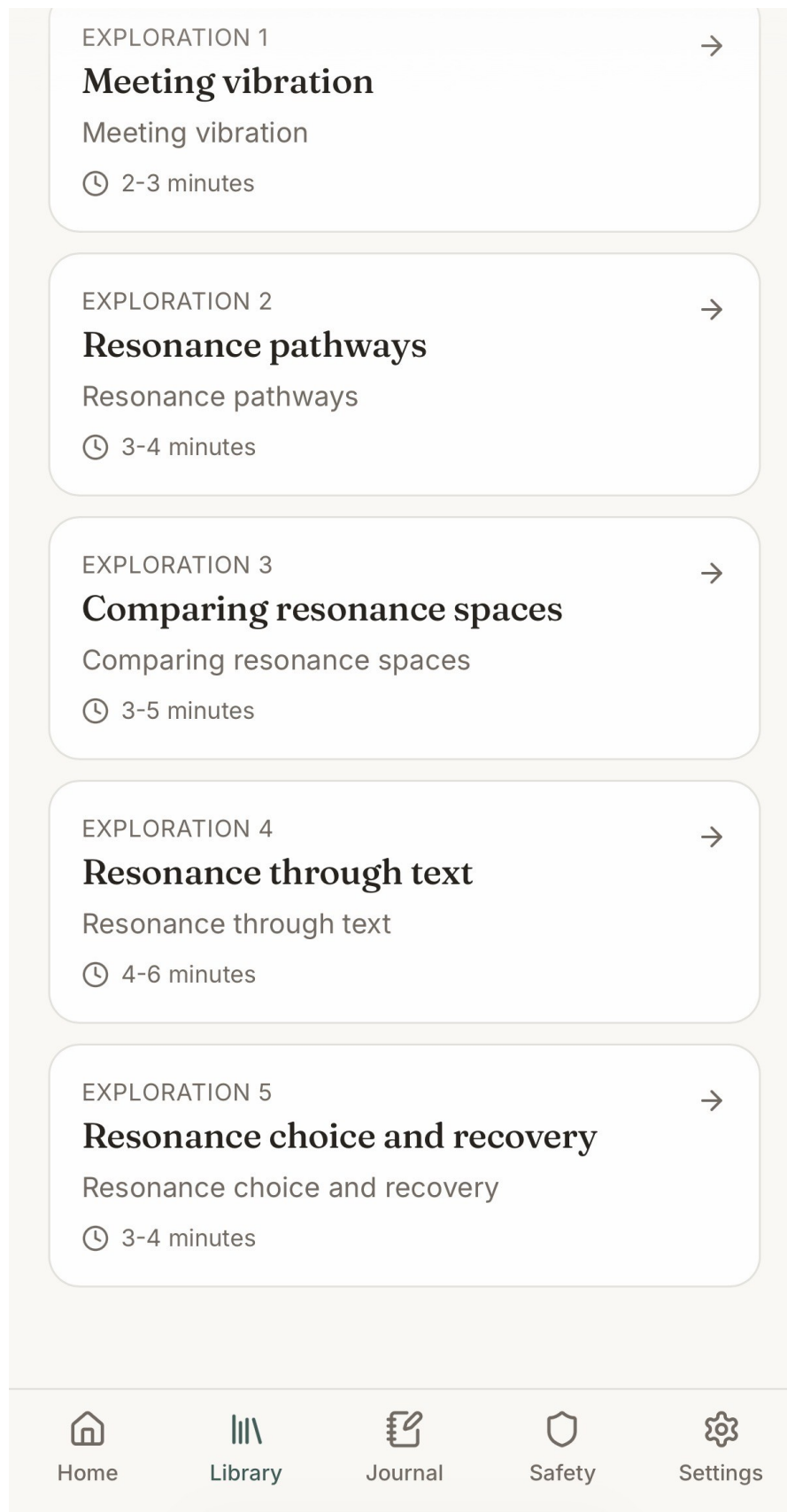


Figure B.18. Placement & Texture pack: overview of explorations and indicative durations.

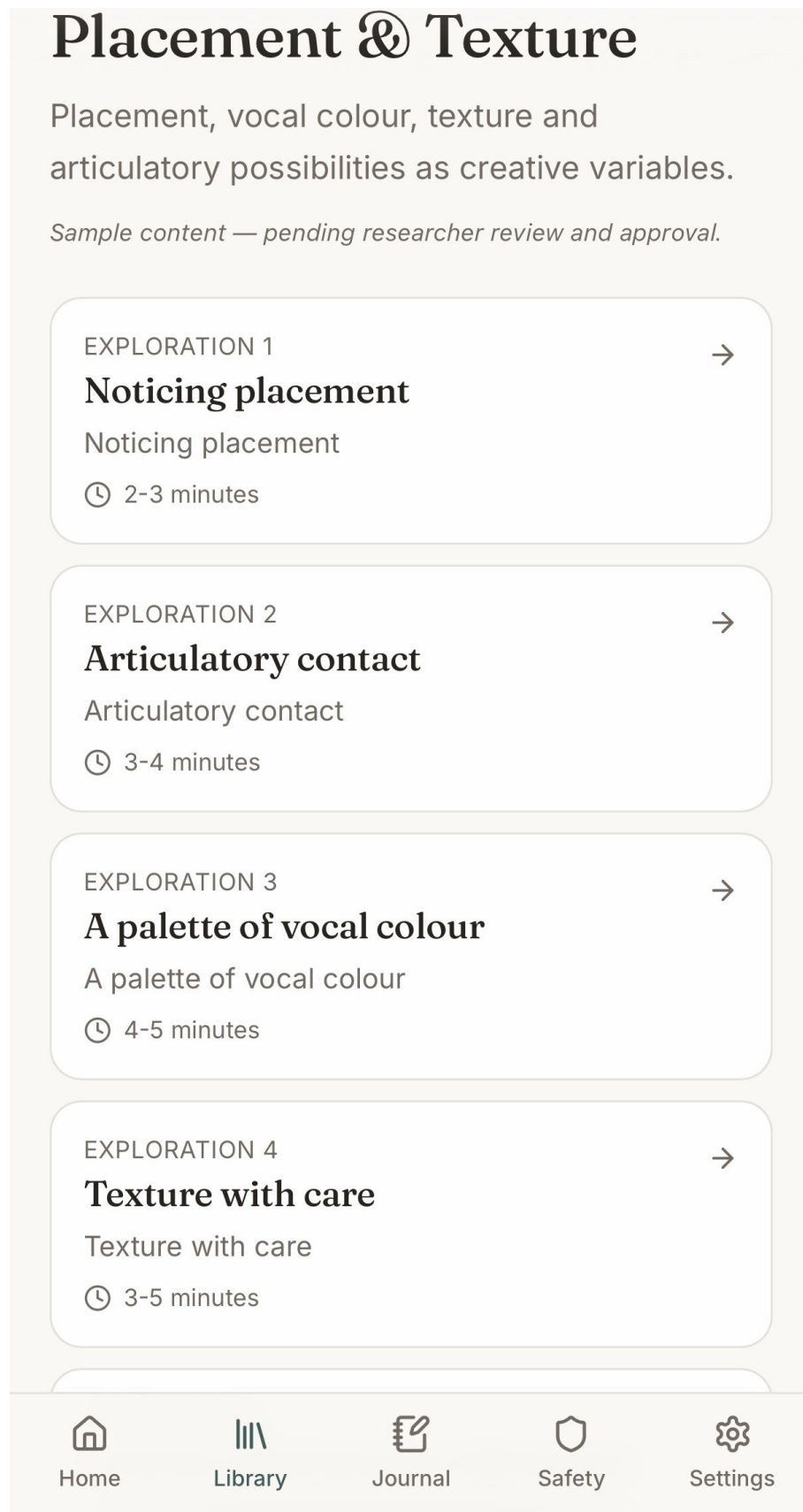


Figure B.19. Placement & Texture pack: complete exploration list.

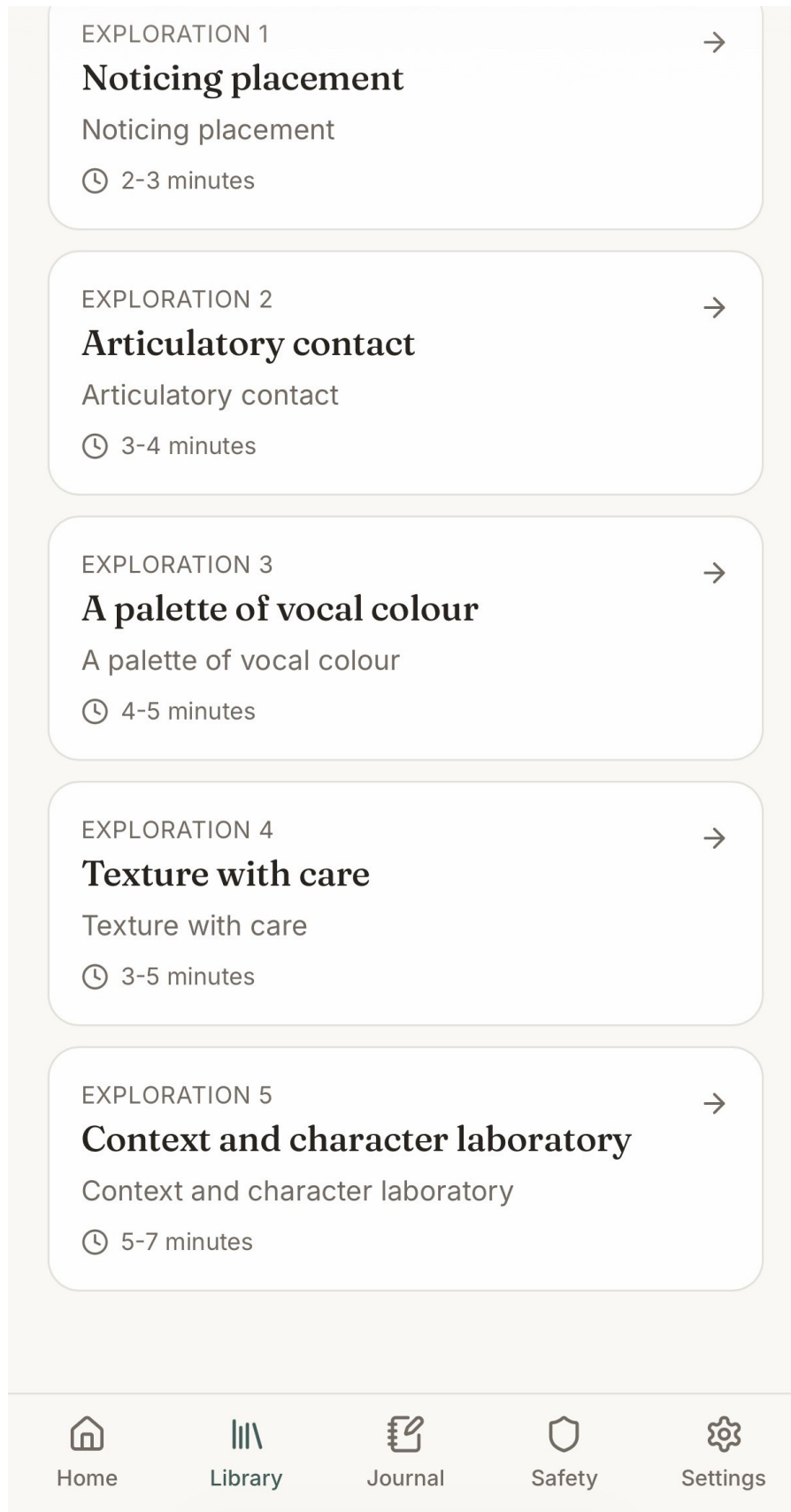


Figure B.20. Breath & Flow pack: exploration overview and non-prescriptive framing of breath.

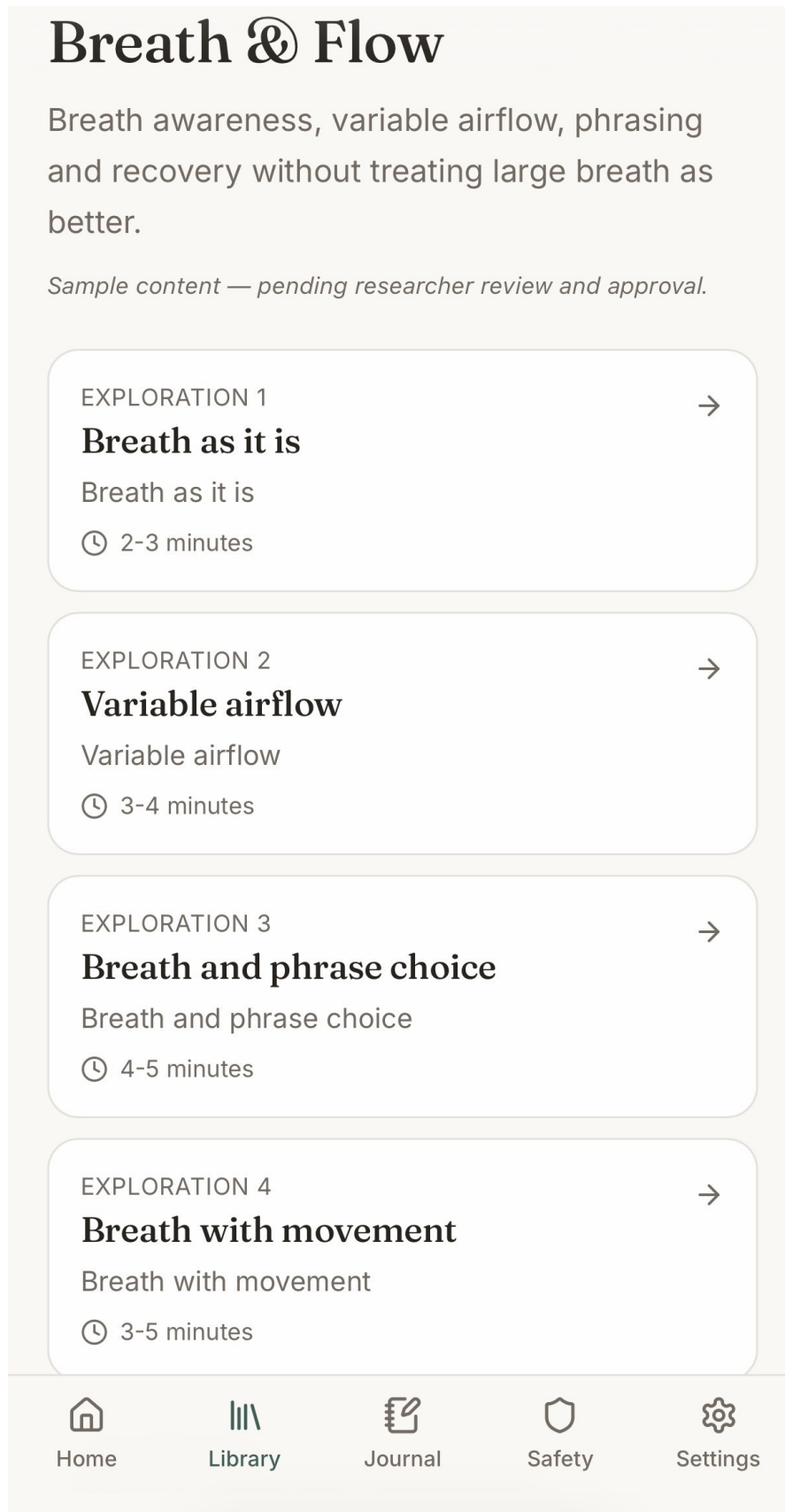


Figure B.21. Intonation & Expressivity pack: exploration list, including expressive choice without gendered targets.

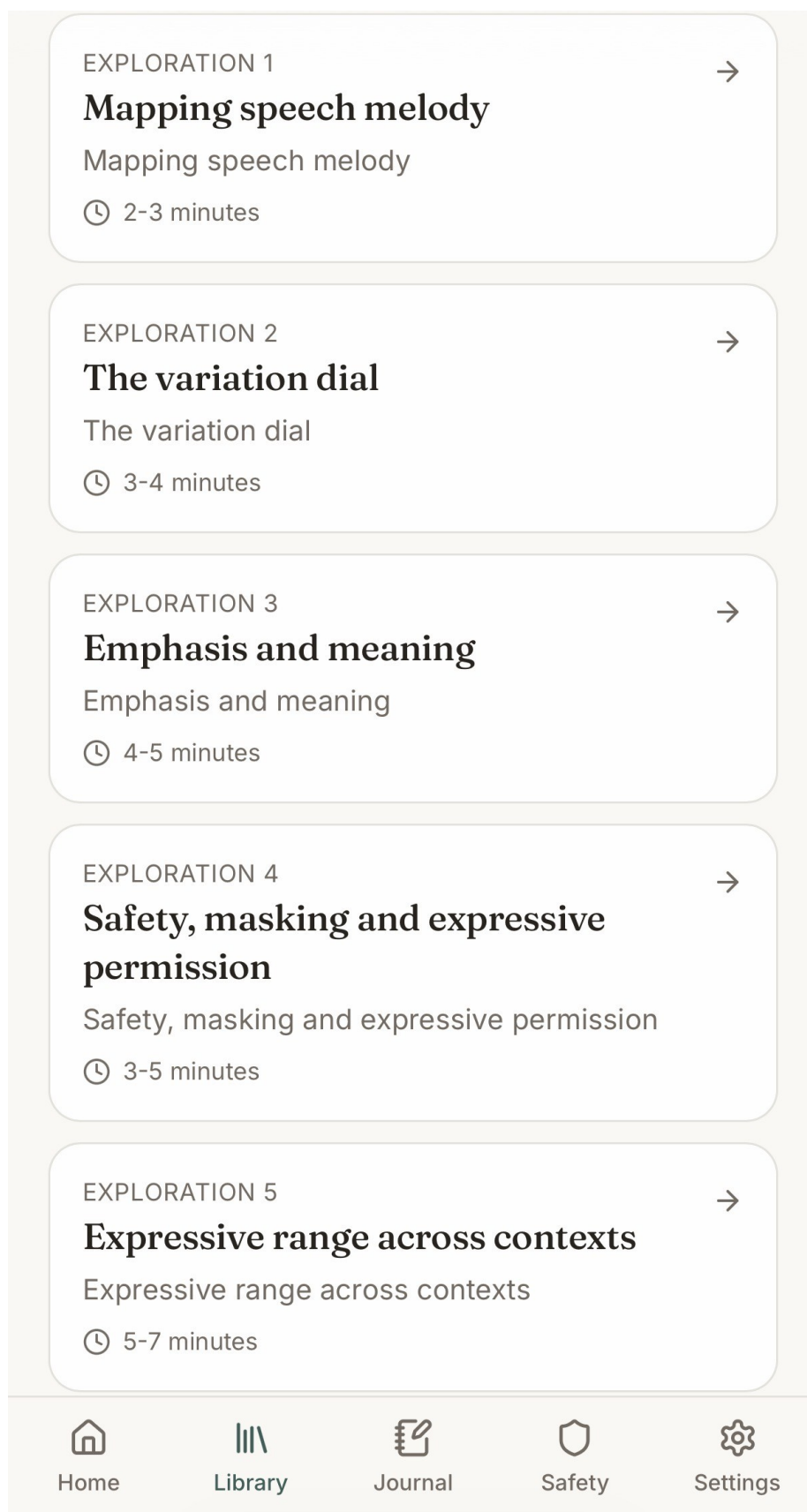


Figure B.22. Embodied Voice pack: exploration overview focused on support, sensation, movement and performance.

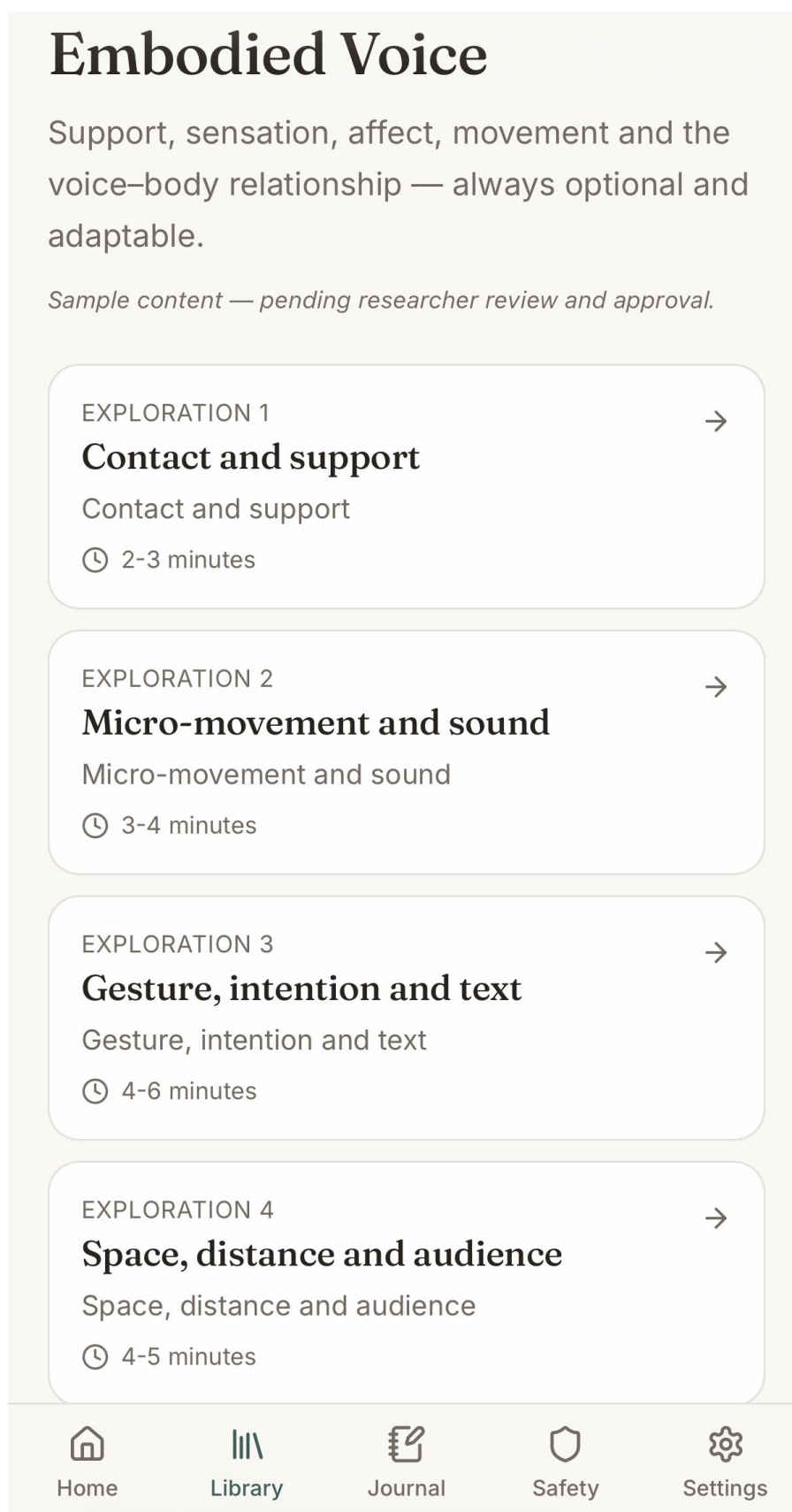


Figure B.23. Embodied Voice pack: continuation of exploration list and whole-voice integration.

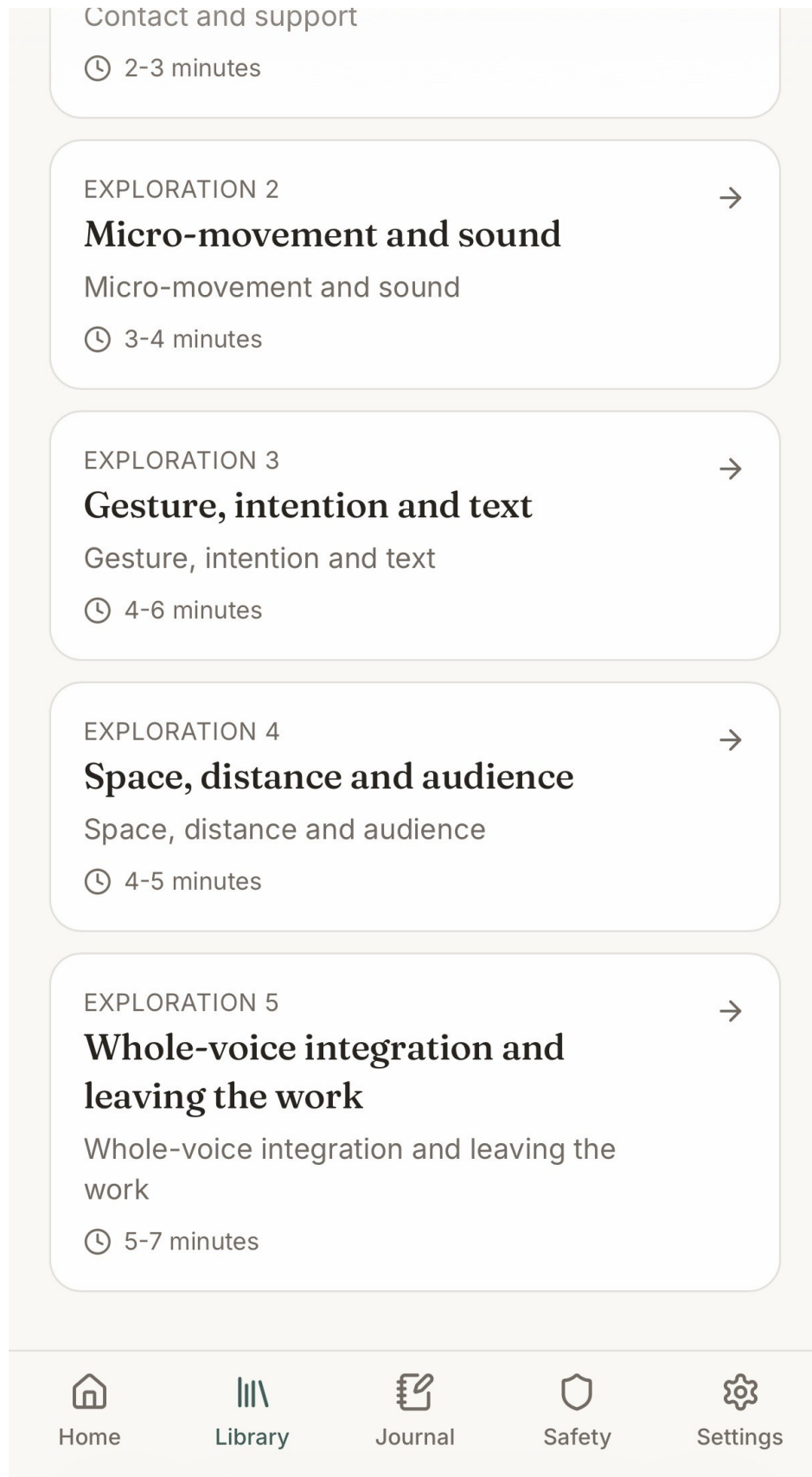


Figure B.24. Guided session entry: home screen and optional pre-session check-in.

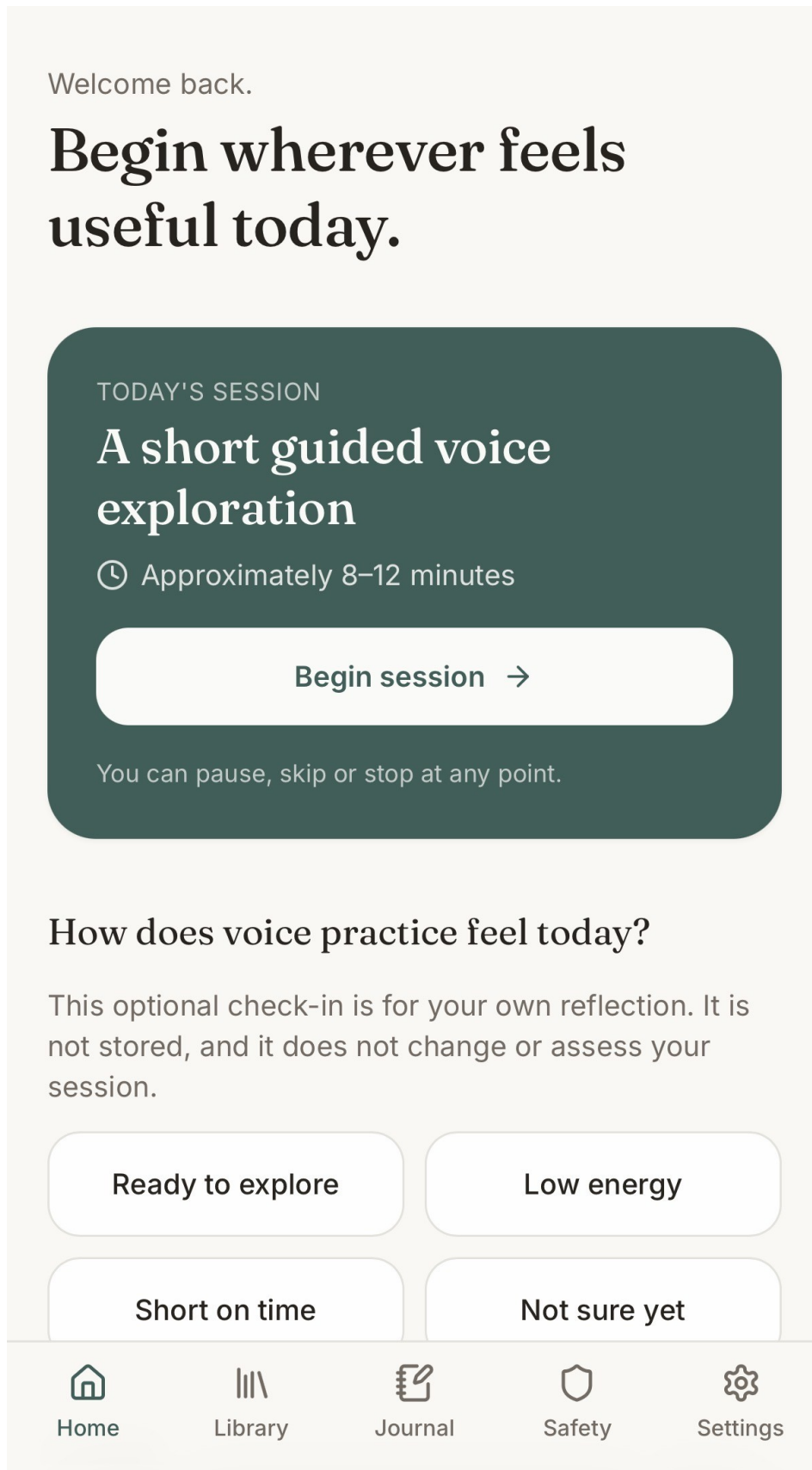


Figure B.25. Guided session sequence: Arrive stage, with repeat, pause, skip and stop controls.

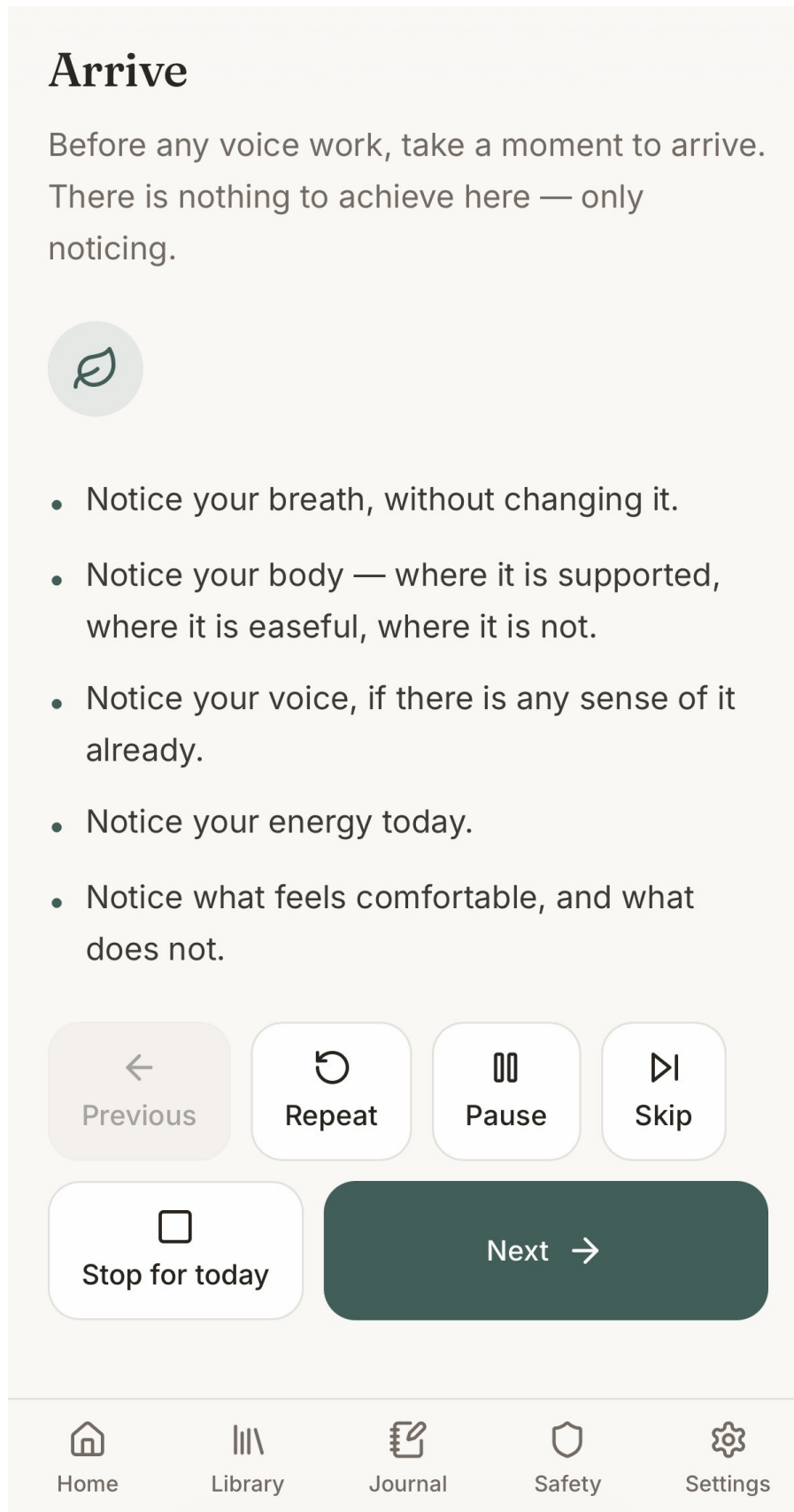


Figure B.26. Guided session sequence: Warm-up stage framed as an invitation rather than a requirement.

Warm-up

A gentle preparation — not gearing up for performance, but bringing whole-person presence to the voice.



Let an easy breath in, and an easy breath out, a few times.

Let a gentle hum begin and end, without sustaining it.

Move the lips, jaw and tongue a little, in whatever way feels releasing.

If any of this does not feel useful today, skip it.
Warming up is an invitation, not a requirement.


Previous


Repeat


Pause


Skip


Stop for today

Next →

Figure B.27. Selected exercise: Meeting vibration - purpose, rationale and adaptable practice instructions.

EXERCISE

Meeting vibration

Sample content — pending researcher review and approval.

 **What we're exploring**

Meeting vibration

A guided, adaptable exploration that can be shortened, changed or skipped.

WHY THIS MAY HELP

Builds a sensory starting point without asking the participant to change the sound.

 2-3 minutes

 **Try this**

- 1 Choose a position that feels adequately supported.
- 2 Notice the breath without enlarging it.
- 3 Allow an easy hum to begin and end; it does not need to be sustained.
- 4 Notice where vibration is present, faint or absent.
- 5 Rest, then repeat only if useful.



Home Library Journal Safety Settings

Figure B.28. Selected exercise: Meeting vibration - noticing prompt, options, performance connection and safety guidance.

4

Notice where vibration is present, faint or absent.

5

Rest, then repeat only if useful.

 Notice

Where did vibration seem most available today?

 Options

- Hum silently in imagination
- use `m`, `n`, `ng` or a comfortable vowel
- place a hand near rather than on the face or chest.

 Performance connection

Notice whether vibration changes when speaking one neutral line.

 Safety & care

Stop for dryness, strain, pain or unwanted sensory intensity.

 Home

 Library

 Journal

 Safety

 Settings

Figure B.29. Selected exercise: The variation dial - adaptable exploration of speech melody and expressive variation.

EXERCISE

The variation dial

Sample content — pending researcher review and approval.

 **What we're exploring**

The variation dial

A guided, adaptable exploration that can be shortened, changed or skipped.

WHY THIS MAY HELP

Makes more and less melodic variation equally available.

 3-4 minutes

 **Try this**

- 1 Say a phrase with slightly more variation
- 2 return to baseline
- 3 try slightly less
- 4 move the imagined dial by small amounts
- 5 release the exercise.

 **Notice**

What amount of variation served the context rather than an external


Home


Library


Journal


Safety


Settings

Figure B.30. Selected exercise: The variation dial - performance connection, safety guidance and optional audio design.

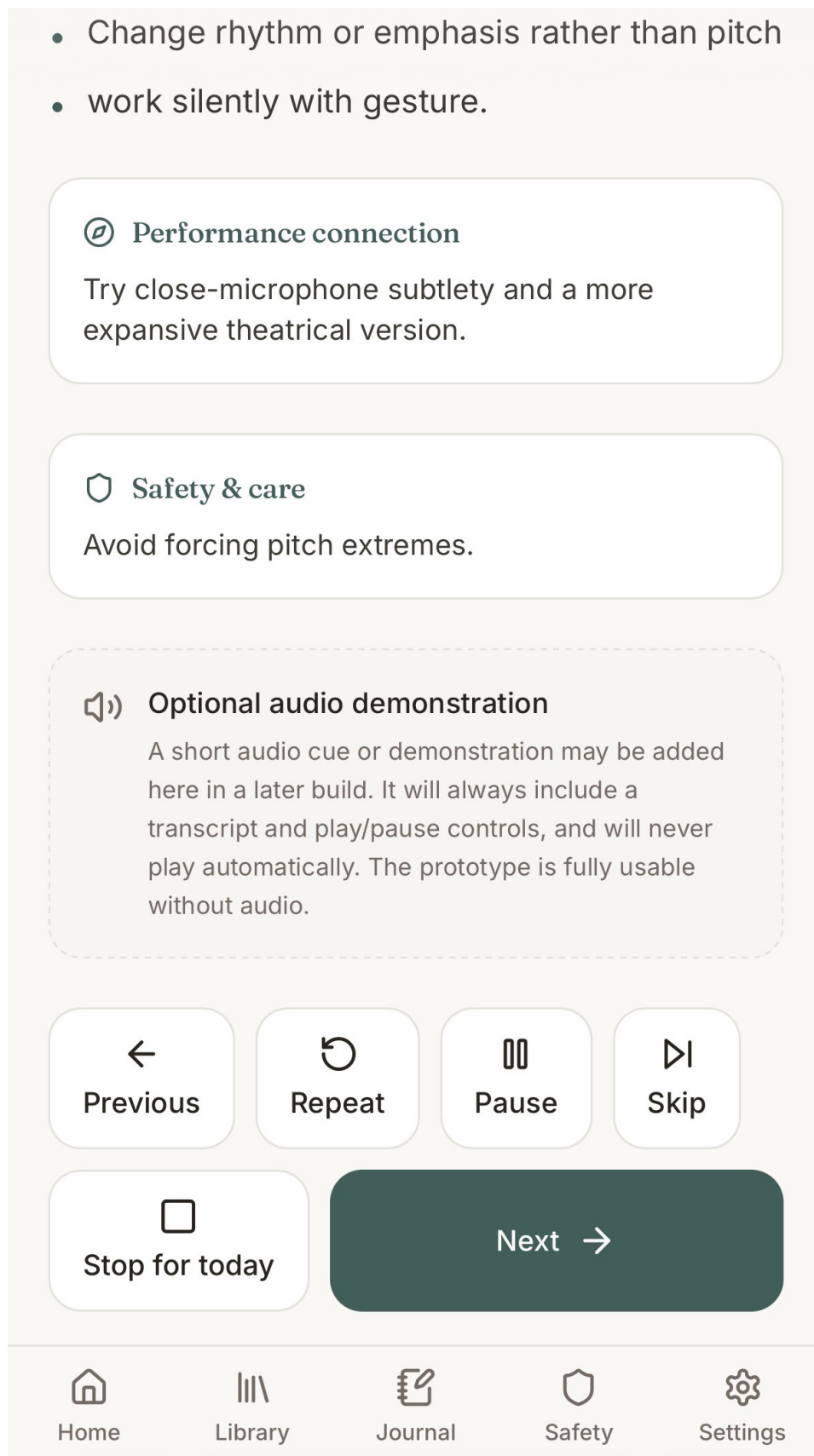
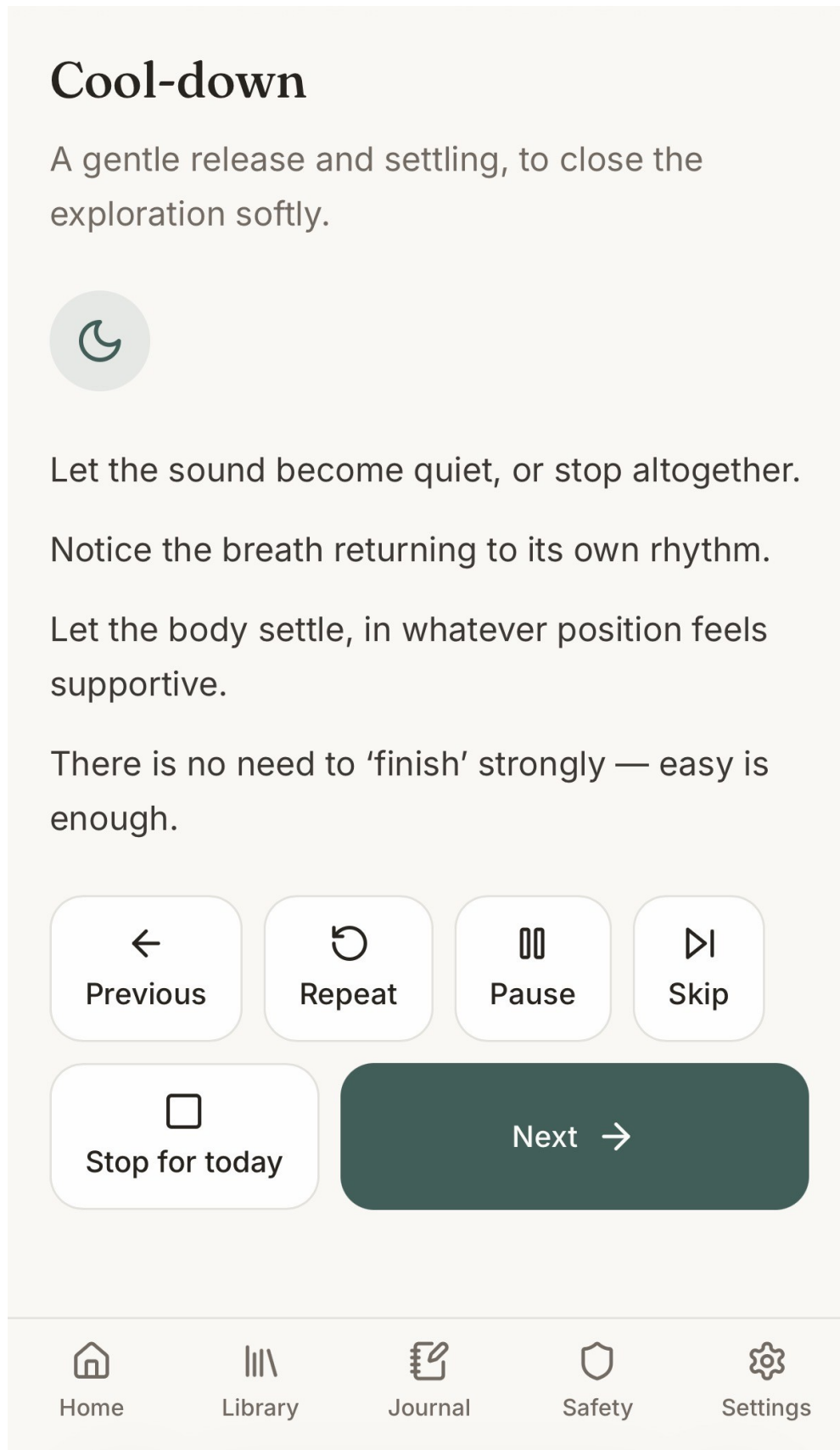


Figure B.31. Guided session sequence: Cool-down stage and gentle closure of practice.



APPENDIX C - Anonymised Participant Data

Pre-Engagement Interview Responses — RA-V

Participant: Robin Achebe-Voss

Pronouns: they/them

1. Voice and Self

My relationship with my voice is mostly positive, although it has taken time to get there. I think of it as part of who I am, but also as an instrument I use professionally. I feel most connected to it when I can make deliberate choices about how I sound rather than feeling that I am being pushed towards somebody else's idea of what my voice should be.

I am especially aware of my voice during auditions, recordings and long performance runs. A self-tape can make me focus on tiny details because the microphone picks up everything. Earlier in my training, I often felt I had to translate instructions built around binary assumptions. Now I am more interested in range, flexibility and ownership than in achieving a fixed sound.

2. Previous Voice-Training Experiences

I completed three years of conservatoire-style actor training, including breath, articulation, resonance and speech work. A lot of the technical foundation was useful, particularly learning how the breath and body support the voice. However, some of the language and expectations assumed that everyone fitted neatly into male or female categories.

Since graduating, my practice has been more self-directed. I use warm-ups from my training, adapt exercises according to what I need, attend occasional workshops and exchange ideas with other queer and trans performers. Peer-led exploration has often felt more supportive because there is less pressure to arrive at one correct result. I tend to avoid exercises that feel prescriptive or that do not explain their purpose.

3. Voice in Performance

My voice is central to my work. On stage, I need enough stamina and clarity to perform repeatedly and adapt to different acoustics. For self-tapes, I need consistency and control in a much quieter environment. Voiceover and audiobook work require sustained delivery without the support of physical movement or interaction with another actor.

What I want from my voice changes with the character and context. I might explore different qualities of resonance, pace, weight, texture or emotional colour, but I do not necessarily understand those choices as masculine or feminine. During touring or periods

with several auditions, fatigue becomes important. I have learned to monitor tightness, dryness and loss of flexibility, although much of that knowledge has come through trial and error.

4. Authenticity

For me, authenticity does not mean always sounding the same. It means that the choices feel like mine and that I am not performing somebody else's expectation of who I should be.

In everyday life, authenticity might mean speaking without constantly monitoring myself. In performance, I may sound very different because I am serving a character or text, but that can still feel authentic as a creative choice. I might use words such as ownership, connection or agency instead, because authenticity can sometimes sound as though there is one true voice hidden underneath everything else.

5. Sustainability

Sustainable voice practice means being able to keep working without forcing my voice or treating discomfort as something I should simply push through. It involves pacing, rest, hydration and noticing what is happening in the rest of my body.

Short, adaptable practices are easier to maintain than a rigid programme, particularly when rehearsal and audition schedules change. I am more likely to return after time away if the resource does not make me feel that I have failed or fallen behind. I would want permission to shorten, modify or stop an exercise when my voice feels tired.

6. Digital Learning

I regularly use apps for language learning and fitness, so I am comfortable learning independently through digital tools. I have used online warm-ups and recorded resources, but I have not used an app specifically designed for voice development.

I like clear instructions, explanations of why an activity might be useful and the freedom to move through material non-linearly. I disengage when an app becomes repetitive, uses constant reminders or turns everything into scores and streaks. Adjustable audio, captions, readable text, clear navigation and the option to use exercises discreetly in a shared space would all be useful.

7. Supportive and Inclusive Voice Practice

An experience feels supportive when I am treated as someone who already has knowledge of my own voice. Language matters a great deal. I prefer precise terms such as

resonance, pitch range, breath support or vocal weight rather than assumptions about sounding masculine, feminine or passing.

I need to know that I can adapt, skip or stop an activity without being judged or asked to justify myself. It would also help if trans and non-binary perspectives were built into the resource from the beginning rather than added afterwards. Clear information about recordings, privacy and data deletion would be essential.

8. Expectations and Hopes

I would hope the prototype offers practical tools for expanding expressive range, maintaining vocal health and responding to different performance demands. I would like to set my own goals rather than choose from identity-based targets.

I would want it to avoid implying that there is a correct trans or non-binary voice. Short sessions, optional deeper exploration, and flexible navigation would make me more likely to return. I would be interested in exploring resonance, stamina and recovery, particularly for moving between stage, self-tape and narration work.

9. Open Invitation

The main thing I would add is that I do not want participation to feel like I am being assessed. If something does not work for me, I would want that to be understood as useful feedback about the tool rather than evidence that I performed the exercise incorrectly.

I would also want complete clarity about whether any voice recordings are stored, who can access them and when they will be deleted. A voice recording is personally identifiable, so that would affect how comfortable I felt engaging with the prototype. Overall, I want to be listened to and given meaningful choices throughout the process.

Pre-Engagement Interview Responses — P

Participant: Priya

Pronouns: she/her

1. Voice and Self

My relationship with my voice is quite exploratory. I am still discovering what it can do and what feels comfortable. I use it as part of character-making and self-expression rather than thinking that I need to settle on one permanent sound.

I become especially aware of it when performing to camera because every small vocal detail is noticeable. Over time, I have become more curious and less focused on whether I am doing something correctly.

2. Previous Voice-Training Experiences

I had some voice work during a foundation-level theatre course, but most of my exploration has been self-directed. I have used online tutorials, tried exercises with peers and learned through devising.

I enjoy exercises that invite experimentation and explain things accessibly. I tend to avoid resources that are highly clinical, assume lots of previous knowledge or make me feel as though I am being tested. I have usually had a great deal of choice because most of my practice has been independent.

3. Voice in Performance

In devised theatre, my voice often changes quickly alongside physical improvisation and character exploration. For video work, I use much more subtle vocal choices because the microphone and camera are close.

My performance demands are more about flexibility and responsiveness than sustained projection. During physically intensive devising, however, I can forget about vocal pacing, so guidance on combining movement and voice safely could be useful.

4. Authenticity

Authenticity means that a voice feels chosen and connected to what I am trying to express. It does not mean that I must sound the same in every video, performance or conversation.

I like being able to experiment without feeling that one result is the real me and everything else is artificial. Freedom or playfulness might describe what I want more accurately than authenticity.

5. Sustainability

Sustainable practice needs to fit naturally into my life. Short exercises that I can use between rehearsals, filming and other activities would be easier to maintain than long compulsory sessions.

I need to be able to notice fatigue, pause and return later. I would be more likely to resume after a break if the app simply welcomed me back rather than showing that I had lost progress or broken a streak.

6. Digital Learning

I am very comfortable using apps, editing tools and short-form digital resources. I learn well from concise demonstrations that let me try something immediately.

I expect navigation to feel intuitive and responsive. I would notice quickly if an interface felt clunky or outdated. I would like optional explanations for technical terms, lightweight note-taking and control over notifications. Too much text or a rigid linear pathway would probably make me disengage.

7. Supportive and Inclusive Voice Practice

Supportive practice makes it clear that I am allowed to experiment and that limited formal training does not make my feedback less valuable. The tone should be encouraging without talking down to me.

I would want to skip or adapt any activity easily. It is also important that the language does not assume a single transition narrative or vocal goal. Clear information about how my words and recordings will be represented would help me trust the process.

8. Expectations and Hopes

I hope the prototype provides short, playful exercises for exploring character, texture, resonance and vocal flexibility. I would like enough structure to learn something new without feeling as though I am following a formal course.

I would want it to avoid tests, scores and gendered targets. I would return if it felt easy to use, offered variety and allowed me to notice my own development without telling me what progress must look like.

9. Open Invitation

I sometimes worry that I do not know enough technical language to provide useful feedback. I would need reassurance that describing what I experienced in my own words is valuable.

I would also want my feedback to be represented accurately rather than absorbed into a generic account of what trans women want. My experience is only my own, and I would want that individuality to remain visible.

Pre-Engagement Interview Responses – MY

Participant: Mari Yeong

Pronouns: she/her

1. Voice and Self

My voice is both personal and professional. It is part of how I recognise myself, but it is also a working instrument that I use across stage performance, narration and teaching.

My relationship with it has changed considerably. Earlier in my career, I often concentrated on reaching a particular result. I now think more about versatility, stamina and whether my voice supports the work I want to do.

2. Previous Voice-Training Experiences

I have had substantial professional voice coaching. Some of it gave me invaluable tools for breath, resonance, articulation and vocal health. Other coaching focused very narrowly on feminisation and reaching a particular pitch or resonance target.

That work was not entirely negative, but it sometimes made my voice feel like a problem to be solved. I now return to exercises that support choice and flexibility. I avoid approaches that treat one vocal quality as inherently better or more appropriate for me.

3. Voice in Performance

My voice has to meet very different professional demands. Long-form narration requires sustained concentration and control over several hours. Stage work requires projection and stamina across a run, while teaching young people requires clarity, warmth and responsiveness.

I have developed routines for managing fatigue, particularly around recording work. My needs are not simply about how my voice is perceived; they are about whether it can remain responsive and healthy across a demanding schedule.

4. Authenticity

Authenticity means feeling that I am making choices rather than obeying an external standard. My voice can change significantly between narration, performance, teaching and private life without any of those versions necessarily being false.

I recognise authenticity through a sense of ease and ownership. I do not feel that I am checking every sound against somebody else's expectations. Agency is probably as important to me as authenticity.

5. Sustainability

Sustainable voice practice must support a long career. It means balancing technical work with rest, responding to fatigue early and avoiding the belief that more practice is always better.

Flexibility is essential because my schedule changes according to productions and recording deadlines. Sometimes I need a short maintenance routine; at other times, I may need more focused preparation or recovery work.

6. Digital Learning

I regularly use digital tools for auditions, recording, editing and remote work, so the technology itself should not be a barrier. I have used online professional-development resources, although the quality varies considerably.

I expect clear organisation, credible instruction and enough flexibility to set my own objectives. I would disengage if the content felt generic, patronising or disconnected from professional practice. Control over recordings and stored data would also be essential.

7. Supportive and Inclusive Voice Practice

Supportive practice recognises that I already have expertise and does not reduce my experience to my gender history. The language should focus on craft and function unless I choose to discuss identity-related goals.

I need explicit permission to decline questions or exercises without having to justify that choice. I would also want reassurance that the research is evaluating the prototype, not evaluating how successfully I have achieved any particular vocal outcome.

8. Expectations and Hopes

I hope the prototype supports professional concerns such as stamina, recovery, expressive colour and flexibility across different kinds of work. It would be useful to set a specific goal, such as preparing for a long narration session, and receive relevant options.

I would want it to avoid organising its content around an assumed feminisation journey or a single pitch destination. I would return if it respected my existing practice while offering something genuinely useful alongside it.

9. Open Invitation

I would prefer not to be asked to explain or defend every stage of my previous voice work. That history informs my perspective, but I would want the interview to remain focused on improving the resource.

Pre-Engagement Interview Responses – JC

Participant: Jim Callahan

Pronouns: he/him

1. Voice and Self

My relationship with my voice is still developing. Because I am currently training, I spend a lot of time analysing it and thinking about what it is doing. That can be useful, but it can also make me self-conscious. I want my voice to feel like something I can use freely and deliberately, rather than something I am constantly trying to correct.

My relationship with it has become more positive as I have gained technical control. What matters most is having enough range and confidence to meet different performance demands without feeling that I must aim for one supposedly correct trans male voice.

2. Previous Voice-Training Experiences

Most of my experience comes from my current drama-school training. I have worked on breath, support, articulation, resonance, projection and different kinds of text. The technical detail has been valuable, especially when tutors explain why an exercise works and adapt it to the individual.

Some training still assumes that everyone fits into fixed male or female vocal categories. Occasionally, I have felt as though I was being fitted into an existing framework rather than being asked what I wanted from my voice. I return to exercises that give me practical control and avoid ones that feel prescriptive or disconnected from my goals.

3. Voice in Performance

I use my voice across classical text, contemporary scenes, self-tapes and spoken-word performance. Each context requires something different. Spoken word needs rhythm, stamina and connection with an audience, while self-tapes require much more subtle control.

During busy periods, repeated rehearsals and performances can leave my voice tired. I am learning to notice when I am pushing too hard, but that can be difficult in an environment where everybody is under pressure to keep working.

4. Authenticity

An authentic voice is one that feels connected to me and responsive to what I want to communicate. It does not necessarily mean sounding the same in every situation.

A character voice can feel authentic if I have chosen it and can inhabit it comfortably. In everyday life, authenticity is more about not feeling that I am monitoring every sound. It's ownership or freedom.

5. Sustainability

Sustainability means developing a practice that supports my voice through training, auditions and professional work without creating unnecessary strain. It involves warming up appropriately, pacing myself and knowing when to rest or change an exercise.

Short practices are easier to maintain around my timetable. If I miss a few days, I need to be able to return without feeling that I have failed or must restart an entire programme.

6. Digital Learning

I use digital platforms, editing software and online resources regularly, so I am comfortable learning through an app. I have used online voice videos, although not a structured voice-development application.

I prefer concise modules, clear demonstrations and enough technical explanation to understand the purpose of each exercise. I would want freedom to move between topics and connect the app's material with what I am currently studying. Poor navigation, vague instructions or overly simplified content would make me disengage.

7. Supportive and Inclusive Voice Practice

Supportive voice work begins by asking what the participant wants rather than assuming a destination. Precise, non-gendered language helps because it allows me to think about vocal qualities without attaching them to an identity.

I also need to be able to question, adapt or reject an exercise without that being treated as resistance. For this study, it would be important to know that my participation is completely separate from my drama school and cannot affect my studies or professional prospects.

8. Expectations and Hopes

I hope the prototype offers technically credible exercises that complement my existing training. Short modules for stamina, flexibility, recovery or preparing for different texts would be particularly useful.

I would want it to avoid beginner-level explanations that become patronising, as well as assumptions that every trans man wants the same vocal outcome. I am curious to see whether it can provide structure while still allowing me to set my own goals.

9. Open Invitation

I would want my feedback to be treated as a contribution to developing the tool, not as an assessment of how successfully I am using my voice. I may disagree with some of the material, and I would want to feel able to say that directly.

Confidentiality is also particularly important because I am still a student. I would need clear reassurance that neither my tutors nor my institution would know what I had said.

Pre-Engagement Interview Responses – ZA-S

Participant: Zed Adeyemi-Sokol

Pronouns: he/him

1. Voice and Self

My voice is connected to enjoyment, community and being able to take part. I have been performing and singing for more than twenty years, so I know my voice quite well, even if I do not always have the formal terminology to describe what I am doing.

I feel most aware of it during intensive rehearsals or when singing with the choir. My relationship with my voice has become more comfortable over time because I have learned what works for me through experience.

2. Previous Voice-Training Experiences

I have never had formal actor training. Most of what I know has come from rehearsals, choir leaders, other performers and working things out for myself. I have also attended a few adult singing workshops.

I find training useful when the instructor explains things plainly and respects what people already know. Some workshops have used technical language without explanation or assumed that everybody wants the same kind of voice. I tend to return to straightforward breathing and warm-up exercises that I can easily connect to performing.

3. Voice in Performance

I use my voice in community theatre, choir performances, singing and occasional compering. Theatre requires clarity and enough energy to carry through a performance, while choir work involves listening and blending with other singers.

My main concern is stamina, particularly during rehearsal-heavy periods. I want to continue performing for many years, so I am increasingly interested in how to use my voice without exhausting it.

4. Authenticity

An authentic voice is one in which I feel comfortable and present. It does not mean that I cannot change my voice for a role or adjust how I sing within a group.

For me, authenticity is less about hitting a particular sound and more about not feeling that I am pretending to be somebody else in my everyday life. Comfort and belonging might be more useful words for it.

5. Sustainability

Sustainable practice means something I can continue alongside work, rehearsals and the rest of my life. I would rather do a thoughtful session once or twice a week than feel pressured to complete something every day.

Rest, pacing and recognising tiredness are important. I am more likely to return to a practice if it feels welcoming and does not punish me for taking time away.

6. Digital Learning

I use my phone and watch instructional videos, but I have not used many structured learning apps. I would probably need a little time to become familiar with how the prototype works.

Clear navigation, plain instructions and easy access to help would make a significant difference. I would prefer technical terms to be explained rather than removed entirely. Too many menus, notifications or complicated settings would probably discourage me.

7. Supportive and Inclusive Voice Practice

I feel supported when informal experience is recognised as still being experience. I would not want to be treated as a complete beginner simply because I did not attend drama school.

It should be clear that there is no single correct outcome and that I can stop or adapt anything that feels uncomfortable. Simple language about consent, privacy and how to opt out would also help me feel secure.

8. Expectations and Hopes

I hope the prototype gives me practical exercises that support stamina, comfort and confidence in both theatre and choir. I would like it to explain what each exercise is intended to do and how I might use it in real situations.

I would want it to avoid jargon, complicated navigation and assumptions about what a trans man's voice should sound like. A friendly structure that allowed longer sessions a couple of times a week would suit me.

9. Open Invitation

It is important that the research values people whose knowledge comes from community practice rather than formal training. I have learned a great deal over the years, even if I express it differently from a trained actor or voice teacher.

APPENDIX D - Transcripts

Transcript 1 — Robin Achebe-Voss (they/them)

Interviewer: Thinking back over the time you've spent with the prototype, how would you describe your overall experience of using it?

Robin: Cautiously positive, I'd say. I went in a bit guarded, if I'm honest — erm — because a lot of resources claim to be inclusive and then aren't, really, once you get into the detail. This one mostly held up

Interviewer: What stands out most when you think back over the experience?

Robin: The language. Genuinely. The fact that it used terms like resonance, pitch range, breath support — rather than "masculine" or "feminine" or god forbid "passing" — that stood out immediately, and it stayed consistent, which is the bit that usually falls apart.

Interviewer: Did your experience of the prototype change over the two to three weeks?

Robin: A little. Early on I was testing it, almost — seeing if it would slip. It didn't, really, so by week two I relaxed into it and started using it more like an actual tool rather than something to be wary of.

Interviewer: How did you find using and navigating the prototype in practice?

Robin: Fine, mostly non-linear, which I liked — I could jump around rather than like being marched through like a sequence. There was a moment where I wanted to go back to something and couldn't easily find it again, that was a bit frustrating.

Interviewer: Were there any accessibility features or barriers that affected your experience?

Robin: I used it with captions on a couple of times when I was practising somewhere I couldn't have audio on, and that worked well. I appreciated having that option — I mentioned before I sometimes need to do exercises discreetly in shared spaces, and it accommodated that.

Interviewer: How did the way the prototype guided you through voice work feel to you?

Robin: Reasonably good. It asked what I wanted rather than assuming a destination, which — that's the whole thing for me, really. Um, occasionally the explanations felt a little brief where I'd have wanted more of the "why," especially around resonance and stamina work.

Interviewer: Was there anywhere you wanted more explanation or support?

Robin: Yeah — recovery. There was some material on stamina but less on what to do afterwards, and that's actually where I need the most support, particularly around touring or heavy audition weeks.

Interviewer: Were there times while using the prototype when you felt particularly comfortable — or uncomfortable — exploring your voice?

Robin: Comfortable, on the whole. There wasn't a moment where I felt judged or pushed towards a specific outcome. That's — honestly that's rare, and I noticed it.

Interviewer: How did you experience the options to pause, adapt, skip or stop activities?

Robin: Present and clear, which mattered to me a lot going in. I did stop one exercise partway through because my voice was tight that day, and it didn't treat that as me doing it wrong.

Interviewer: Was any of the safety language especially useful, unnecessary or missing?

Robin: The bit about data and recordings — where they go, who sees them, when they're deleted — that was clear and I read it properly, more than once actually, because that's not a small thing for me. A voice recording is identifiable. I appreciated that it didn't gloss over that.

Interviewer: How, if at all, did the experience relate to your sense of your own voice and identity?

Robin: It didn't try to tell me who I was through my voice, which is the main thing. Before we started this study I said I preferred words like ownership or agency to "authenticity" — and using the prototype, I'd probably still say that. If anything it reinforced it. Nothing in there implied a "correct" non-binary voice, which — honestly, that's the bar, and it cleared it.

Interviewer: Did any of the language or exercises affect how you thought about your voice?

Robin: A little, yeah. There was an exercise on vocal weight that gave me a new way of thinking about a quality I'd been calling something else entirely. Small thing but useful.

Interviewer: How relevant did the prototype feel to you specifically as an actor or performer?

Robin: Quite relevant, particularly the self-tape and narration-adjacent content. I do a lot of that quieter, more controlled work and the prototype's material suited it better than the louder stage-projection stuff, if that makes sense.

Interviewer: Did the prototype feel like performer voice training, everyday voice exploration, or something else?

Robin: Somewhere in between, honestly. It's not a substitute for proper training, but it's a genuinely useful supplement — the kind of thing I'd use between jobs to keep something ticking over.

Interviewer: How did engaging with the prototype fit into your life and your voice practice over the two to three weeks?

Robin: Erm, it fit around auditions, mostly. Short sessions on quieter days, nothing on the days I had tapes due. I did go five or six days without opening it during a particularly mad week and coming back wasn't an issue — no guilt-tripping messaging, which I was half-expecting.

Interviewer: Could you imagine using something like this over a longer period? Why or why not?

Robin: Yes, provided it kept evolving with me rather than assuming I'd arrive at some endpoint. I don't think of my voice as heading towards a finish line.

Interviewer: If you could change the prototype for the next person who uses it, what would you change — and what would you make sure stayed?

Robin: Expand the recovery content, like I said. And maybe be even more explicit, upfront, about the data handling — not because it was hidden, but because I think it's worth putting front and centre rather than in a settings menu. Keep — definitely keep — the non-gendered language and the "you can stop this at any time, no explanation needed" framing.

Interviewer: Is there anything else about your experience — or about digital voice work more broadly — that you think I need to understand?

Robin: Just — and I want to say this clearly — this didn't feel like being assessed. That was the thing I was most worried about beforehand, and it didn't happen. If it had, I'm not sure I'd have kept going. I think that's probably the single most important thing for you to hear.

Transcript 2 — Priya (she/her)

Interviewer: Thinking back over the time you've spent with the prototype, how would you describe your overall experience of using it?

Priya: Honestly? Really enjoyable, which — erm — kind of surprised me a bit, because I went in not expecting to look forward to it. I think what stood out was just... how playful it let me be. Like, I wasn't sitting there thinking "am I doing this right," I was just trying things.

Interviewer: Was anything different from what you expected before you began?

Priya: Yeah, actually. I thought it might feel a bit more like a course, you know, with modules I had to get through in order. But it wasn't like that. I dipped in and out. There were a couple of the character-texture exercises I went back to probably... four or five times over the three weeks, just because they were fun.

Interviewer: How did you find using and navigating the prototype in practice?

Priya: Pretty intuitive, actually. I didn't feel lost. There were maybe two moments where I wasn't sure what a button did — erm, something in the reflection space — but I just tapped around and worked it out. I didn't need it explained to me, which I liked.

Interviewer: Were there any accessibility features or barriers that affected your experience?

Priya: Not really barriers. I did notice I would've liked slightly more note-taking space — like, lightweight, not a whole journal — just somewhere to jot a word or two after an exercise.

Interviewer: How did the way the prototype guided you through voice work feel to you?

Priya: It felt... encouraging without being patronising, which is a hard balance. The tone didn't talk down to me. Um, there was enough explanation that I understood why I was doing something, but it didn't overload me with technical stuff, which — you know me — I'd have switched off.

Interviewer: Did anything feel too directive, too vague, or otherwise unhelpful?

Priya: A tiny bit vague once or twice, actually, in a good way? Like it left room for me to interpret it myself rather than telling me exactly what the "correct" result should sound like.

Interviewer: Were there times while using the prototype when you felt particularly comfortable — or uncomfortable — exploring your voice?

Priya: Comfortable, mostly. There was one session, erm, quite physical, where I forgot to pace myself, and my voice got a bit tired — but that's on me, not the app. Actually the app did check in afterwards, sort of gently, which I appreciated.

Interviewer: How did you experience the options to pause, adapt, skip or stop activities?

Priya: Really easy, and I used them. I skipped a couple of things that didn't interest me on a given day and it didn't make me feel like I was failing at something.

Interviewer: How did the Safety & Care guidance feel in practice?

Priya: It was there without being in my face about it. I read it once properly and then just knew it was available if I needed it. Interviewer: How, if at all, did the experience relate to your sense of your own voice and identity? Priya: This is the bit I keep thinking about, actually. Before, I described authenticity as, erm, freedom or playfulness rather than "the real me" — and using the app didn't change that, but it kind of... confirmed it? Nothing in there assumed I was working towards one fixed sound. That mattered more than I expected it to.

Interviewer: Did anything feel as though it assumed something about you or your vocal goals?

Priya: No, actually — and I was looking for it, if I'm honest, because a lot of things do. I didn't find it here.

Interviewer: How relevant did the prototype feel to you specifically as an actor or performer?

Priya: Quite relevant for devising work especially. The flexibility stuff, the quick-change exercises — I could see using bits of that in a rehearsal room. For camera work I think it's even more useful because it's all about subtlety, which is exactly what I need.

Interviewer: Was anything missing that would have made it more relevant to acting or performance?

Priya: Maybe something about combining voice and movement safely — like I said before I started, that's where I tend to lose track of my voice. There wasn't loads on that.

Interviewer: How did engaging with the prototype fit into your life and your voice practice over the two to three weeks? Priya: Quite well, actually. Short sessions between rehearsals, that kind of thing. There was one week I didn't open it for like four days because I was filming something, and when I came back it just... welcomed me back. No "you broke your streak" nonsense. That's exactly what I said I needed and it delivered.

Interviewer: Could you imagine using something like this over a longer period? Why or why not?

Priya: Yeah, I think so, as long as it kept giving me variety. If it started repeating the same five exercises I'd probably drift off.

Interviewer: If you could change the prototype for the next person who uses it, what would you change — and what would you make sure stayed?

Priya: Change — erm, maybe a bit more note space, like I said. And maybe slightly more variety in the playful exercises long-term. Keep — definitely keep the tone. And the lack of scores. Please don't add scores.

Interviewer: Is there anything else about your experience — or about digital voice work more broadly — that you think I need to understand?

Priya: Just that... I came in worried my feedback wouldn't be useful because I don't have loads of formal training. And doing this interview, I don't feel that way anymore. I think that's worth noting, actually.

Transcript 3 — Jim Callahan (he/him)

Interviewer: Thinking back over the time you've spent with the prototype, how would you describe your overall experience of using it?

Jim: Good, yeah. Genuinely useful, actually, which — I'll admit — wasn't what I expected going in, because I'm already in training and I sort of assumed it'd feel basic next to what I'm doing at drama school.

Interviewer: Was anything different from what you expected before you began?

Jim: The level of it, honestly. It didn't dumb things down. There was enough technical detail that I didn't feel like it was talking past me or below me, which is — that's the sweet spot, and it's hard to hit.

Interviewer: Were there particular moments or features you found yourself remembering or returning to?

Jim: There was a stamina module I went back to a few times, especially during a week we had loads of rehearsals stacked up. And, erm, something on recovery after heavy vocal days — that one stuck with me.

Interviewer: How did you find using and navigating the prototype in practice?

Jim: Fine. Clean, not fussy. I could move between topics rather than being stuck on a fixed path, which mattered to me because I wanted to connect it to whatever I was working on at school that week.

Interviewer: How did the way the prototype guided you through voice work feel to you?

Jim: It asked what I wanted rather than assuming where I should end up, which — again — that's the whole thing, isn't it. The tone wasn't gendered, wasn't assuming everyone wants the same outcome. I noticed that pretty quickly and it held up throughout.

Interviewer: Did anything feel too directive, too vague, or otherwise unhelpful?

Jim: A couple of the early explanations felt slightly... cautious? Like it was being careful not to assume anything about me, which I understand why, but it occasionally meant less specific technical guidance than I'd have got from a tutor. Not a big complaint, just something I noticed.

Interviewer: Were there times while using the prototype when you felt particularly comfortable — or uncomfortable — exploring your voice?

Jim: Comfortable, mostly. There wasn't anything that made me feel like I had to reach a specific "correct trans male voice," which is something I've run into before in training, so its absence here was noticeable — in a good way, though. Definitely good.

Interviewer: Was any of the safety language especially useful, unnecessary or missing?

Jim: The confidentiality stuff mattered a lot to me specifically, being a student. Knowing my drama school wouldn't see any of this, that it wasn't tied to my studies in any way — that was important, and it was communicated clearly, so, yeah, no issue there.

Interviewer: How, if at all, did the experience relate to your sense of your own voice and identity?

Jim: It didn't push a narrative on me, if that's what you mean. I said before that authenticity, for me, is more about ownership than sounding a particular way — and nothing in the app contradicted that. If anything it reinforced the idea that range and confidence matter more than hitting some fixed target.

Interviewer: Did anything feel as though it assumed something about you or your vocal goals?

Jim: No, not really. I was half-expecting a "journey" framing, and it didn't do that.

Interviewer: How relevant did the prototype feel to you specifically as an actor or performer?

Jim: Pretty relevant, especially the stamina and recovery stuff, which is exactly what I need at drama school right now with everything stacked on top of each other. The self-tape material was useful too — that subtlety, control side of things.

Interviewer: How might you imagine using something like this alongside other forms of actor or voice training?

Jim: As a supplement, definitely, not a replacement — I don't think it's trying to be one, to be fair to it. Something I'd use between formal

sessions, to keep ticking over or to prep for something specific like an audition.

Interviewer: How did engaging with the prototype fit into your life and your voice practice over the two to three weeks?

Jim: Around my timetable, basically. Short sessions when I had ten minutes, nothing when I didn't. There was a stretch — erm, maybe four days — where I didn't touch it because we had a show on, and coming back to it didn't feel like starting over, which is exactly what I need given how packed training gets.

Interviewer: Could you imagine using something like this over a longer period? Why or why not?

Jim: Yeah, I think so, provided it kept giving me credible, technically solid content rather than becoming repetitive or too introductory over time.

Interviewer: If you could change the prototype for the next person who uses it, what would you change — and what would you make sure stayed?

Jim: I'd want a bit more depth in the technical explanations eventually, maybe an "advanced" layer for people already in training. Keep — the non-gendered language, definitely, and the confidentiality framing. That's not negotiable for me.

Interviewer: Is there anything else about your experience — or about digital voice work more broadly — that you think I need to understand?

Jim: Just that I want my feedback treated as, like, contributing to the tool — not as a judgement on how well I'm using my voice. I think I said that before we even started and it's still true now. I disagreed with a couple of small things in there and I want to be able to say that plainly without it being a problem.

Transcript 4 — Mari Yeong (she/her)

Interviewer: Thinking back over the time you've spent with the prototype, how would you describe your overall experience of using it?

Mari: Professionally useful, which is really the test for me at this stage of my career. I wasn't looking for something transformative, erm, I was looking for something that respected the work I already do, and largely, it did.

Interviewer: Was anything different from what you expected before you began?

Mari: I expected it to lean more heavily into identity framing than it did, if I'm honest — some of these resources organise everything around a "feminisation journey," and I was bracing for that. It didn't do that, which was a relief, genuinely.

Interviewer: How did you find using and navigating the prototype in practice?

Mari: Clean, well organised. I've used a lot of professional-development tools over the years and the quality varies enormously — this was on the better end. I could set what I wanted to focus on, like preparing for a long narration session, and get something relevant back.

Interviewer: Was anything confusing, difficult to find, or unnecessarily complicated?

Mari: Not really confusing. I did want slightly more control over how my data and recordings were stored, and while the information was there, I had to go looking for it a bit.

Interviewer: How did the way the prototype guided you through voice work feel to you?

Mari: Craft-focused, mostly, which I appreciated. The language stayed on function — stamina, resonance, colour — rather than reducing everything to my gender history. That's exactly what I said mattered to me beforehand, so it's good to be able to confirm it held up in practice.

Interviewer: Was there enough guidance?

Mari: For the most part, yes. There were moments I'd have liked slightly more depth — I'm coming to this with a lot of existing technique, so some

of the introductory framing wasn't really for me, but I could see how it would serve someone with less experience.

Interviewer: Were there times while using the prototype when you felt particularly comfortable — or uncomfortable — exploring your voice?

Mari: Comfortable, generally. There wasn't a moment where my voice was treated as a problem to be solved, which — I've had coaching in the past that did exactly that, so its absence here stood out to me quite quickly.

Interviewer: Did you feel able to make choices about how you engaged?

Mari: Yes. I could decline questions or skip exercises without it turning into a whole thing, which mattered — I didn't want to be asked to justify every choice.

Interviewer: How, if at all, did the experience relate to your sense of your own voice and identity?

Mari: It reinforced something I already believed, more than it changed anything, if I'm honest — that authenticity, for me, is about agency rather than any particular sound. My voice is different in narration, on stage, teaching, at home, and the prototype didn't treat any of those as more "real" than the others.

Interviewer: Did anything feel as though it assumed something about you or your vocal goals?

Mari: No, and I was specifically watching for that, given some of my past experiences with coaching. It didn't organise itself around a single pitch destination, which was the main thing I'd asked it to avoid.

Interviewer: How relevant did the prototype feel to you specifically as an actor or performer?

Mari: Quite relevant, particularly across the different demands I have — narration, stage, teaching. The stamina and recovery material especially, I could see using that directly around a long recording block.

Interviewer: How might you imagine using something like this alongside other forms of actor or voice training?

Mari: As a maintenance tool, mostly, sitting alongside proper professional coaching rather than replacing it. Something I'd dip into around a specific job rather than following start to finish.

Interviewer: How did engaging with the prototype fit into your life and your voice practice over the two to three weeks?

Mari: Flexibly, which is what I need given how my schedule shifts around productions. Some weeks a short maintenance session, one week almost nothing because I had a recording deadline, and it didn't punish me for that when I came back.

Interviewer: Could you imagine using something like this over a longer period? Why or why not?

Mari: Yes, provided it continues to respect that I already have expertise. If it started treating me as a beginner, I think I'd drop off fairly quickly.

Interviewer: If you could change the prototype for the next person who uses it, what would you change — and what would you make sure stayed?

Mari: I'd surface the data and recording controls more visibly, upfront, not buried. Keep — absolutely keep the craft-first language and the fact it let me set my own goal rather than picking from a list of identity-based targets.

Interviewer: Is there anything else about your experience — or about digital voice work more broadly — that you think I need to understand?

Mari: Just

— I appreciated not being asked to explain or defend my previous voice work throughout this process. That history is mine; it informs how I use my voice now, but it's not really what this study is about, and the prototype, to its credit, didn't go digging there either.

Transcript 5 — Zed Adeyemi-Sokol (he/him)

)Interviewer: Thinking back over the time you've spent with the prototype, how would you describe your overall experience of using it?

Zed: Yeah, good, actually — took me a bit to get my head round it at first, erm, because I'm not really an app person, but once I found my feet it was alright. Better than alright, really.

Interviewer: Was anything different from what you expected before you began?

Zed: I thought it'd be more like... school, if that makes sense? Like there'd be a right and wrong way to do things. It wasn't like that. It explained what each exercise was for and then just left me to it.

Interviewer: How did you find using and navigating the prototype in practice?

Zed: Took a little time, like I said. First week I was a bit lost, went looking for help a couple of times. Once I got used to where everything was it was fine
— clear enough, not too many menus, which I was worried about.

Interviewer: Were there any accessibility features or barriers that affected your experience?

Zed: Nothing that got in my way, no. I did appreciate that it explained the technical words rather than just chucking them at me — that's usually where I switch off in workshops, when people assume you already know the lingo.

Interviewer: How did the way the prototype guided you through voice work feel to you?

Zed: Plain, in a good way. It didn't assume I wanted the same thing as anybody else, and it didn't treat me like a total beginner just because I've never had formal training. I've been singing and performing for twenty-odd years — I know my voice, even if I don't always know the fancy words for it, and the prototype seemed to get that.

Interviewer: Was there enough guidance?

Zed: Yeah, plenty. Maybe even a bit more than I needed some days, but I'd rather that than not enough.

Interviewer: Were there times while using the prototype when you felt particularly comfortable — or uncomfortable — exploring your voice?

Zed: Comfortable, mostly. There was one exercise, erm, that used a term I didn't recognise and for a second I felt a bit daft — but it explained it straight after, so that sorted itself out quick.

Interviewer: How did you experience the options to pause, adapt, skip or stop activities?

Zed: Good, that. I stopped one session early because I was knackered from a rehearsal the night before, and it didn't make a fuss about it. That mattered to me, because I want to keep doing this for years, not burn myself out.

Interviewer: Was any of the safety language especially useful, unnecessary or missing?

Zed: The bit about there being no single correct outcome — I read that a few times, actually, because it's the opposite of what some workshops have made me feel in the past.

Interviewer: How, if at all, did the experience relate to your sense of your own voice and identity?

Zed: It didn't try and tell me what a "trans man's voice" should sound like, which I was braced for at some point I think. My voice is tied up with community and belonging more than anything else, and the app didn't get in the way of that. If anything it just gave me a bit more language for stuff I already knew how to do.

Interviewer: How relevant did the prototype feel to you specifically as an actor or performer?

Zed: Pretty relevant for community theatre and choir, yeah. The stamina stuff especially — that's my main worry these days, keeping going through a whole rehearsal-heavy period without wrecking my voice.

Interviewer: Was anything missing that would have made it more relevant to acting or performance?

Zed: Maybe a bit more on choir-type singing specifically — blending with other voices, that kind of thing. Most of it felt geared towards solo performance or theatre.

Interviewer: How did engaging with the prototype fit into your life and your voice practice over the two to three weeks?

Zed: A couple of times a week, longer sessions rather than every day, which suited me — I said before I didn't want to feel pressured into a daily thing, and it let me do it my way.

Interviewer: Could you imagine using something like this over a longer period? Why or why not?

Zed: Yeah, I reckon so, now I've got used to it. Took a bit of settling in but I'd keep going with it.

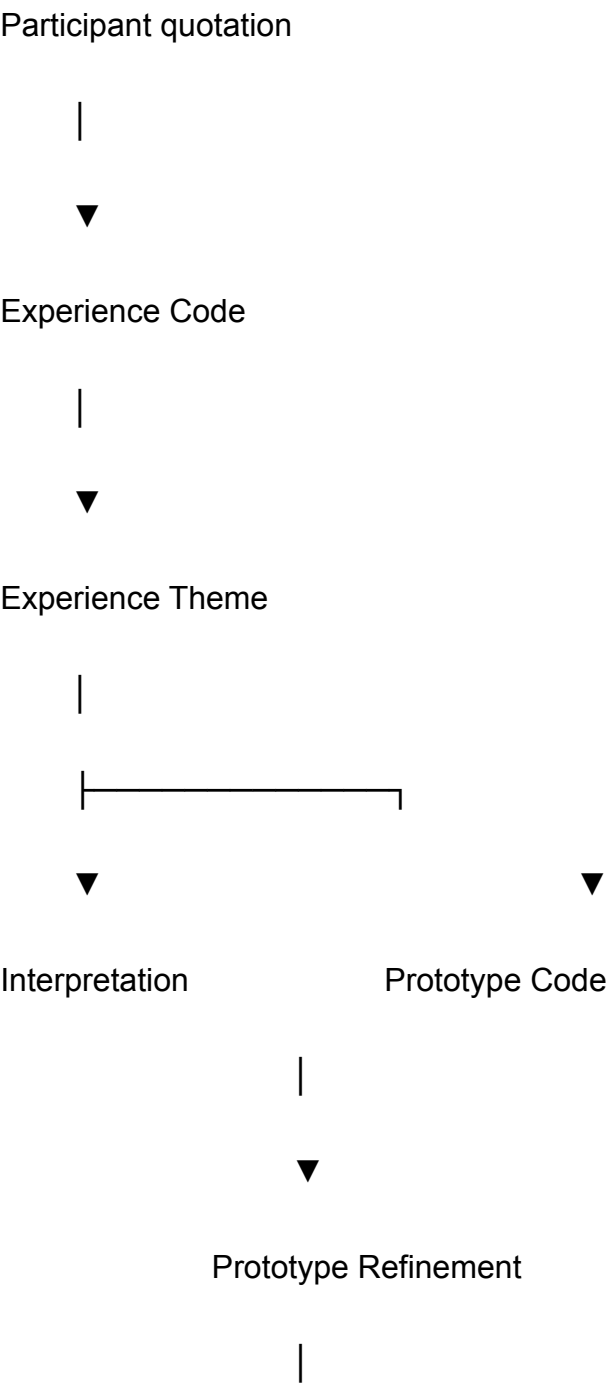
Interviewer: If you could change the prototype for the next person who uses it, what would you change — and what would you make sure stayed?
Zed: Maybe a bit more help finding your way round in the first week — like a proper walkthrough for people who aren't used to apps. Keep — definitely keep the plain explanations and not assuming everyone wants the same outcome.

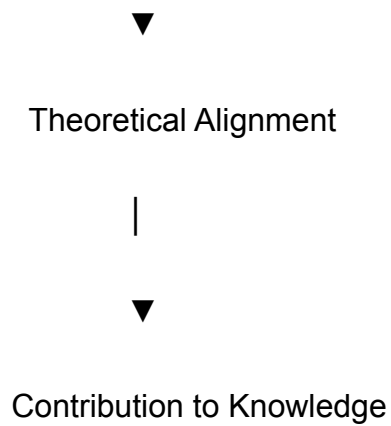
Interviewer: Is there anything else about your experience — or about digital voice work more broadly — that you think I need to understand?

Zed: Just that people like me — who've learned everything through doing it, through choirs and rehearsals rather than drama school — we've still got something worth saying. This whole thing made me feel like that was actually true, not just a nice thing to say at the start of an interview.

APPENDIX E — Reflexive Thematic Analysis and Analytical Audit Trail

Post-Engagement Response Analytical Chain





Coding Principle

Remain close to the participant's words during initial coding. Codes should describe meaningful features of the data rather than prematurely interpret them as themes. Broader conceptual interpretation will occur during later stages of reflexive thematic analysis.

APPENDIX F — Reflective Research Journal

This appendix presents the reflective research journal maintained during Module 6. The journal documents the researcher's developing methodological thinking, reflexive consideration of insider positionality, responses to participant engagement and the iterative relationship between evidence, interpretation and prototype refinement. It is included as supporting evidence of the reflexive practitioner-research process described within the Project Report.

Reflective Research Journal – Entry 1

Authenticity, authority and what counts as evidence

Activity / Focus

Today I mapped the literature underpinning the Module 6 literature review, focusing particularly on voice, identity, authenticity, inclusive pedagogy and evidence-informed practice.

Reflective Analysis

The process exposed a tension in my use of the word 'authenticity' that I had not fully recognised before.

I have repeatedly described the prototype as supporting authentic voice development, largely because authenticity feels antithetical to the prescriptive and binary models of voice training I am trying to avoid. However, engaging more critically with the literature has made me realise that 'authenticity' is not automatically an inclusive concept simply because it sounds affirmative.

If I design a resource around the assumption that there is an 'authentic voice' to be discovered, I may unintentionally create another destination for the learner. The language changes, but the underlying structure could remain normative: previously the learner might have been encouraged to become more feminine or masculine; now they might be encouraged to become more 'authentic'. In either case, somebody still needs to decide what successful arrival looks like.

Ahmed, Kim and Hoffmann's framing of authenticity alongside **authority** has consequently become much more important to me. The question is not simply whether a voice feels authentic, but who has authority to determine what authenticity means.

This has shifted my thinking towards authenticity as an open research question rather than a pedagogical claim. I am increasingly interested in whether authenticity might be understood as an evolving relationship with vocal possibility rather than a stable acoustic outcome – but it would be methodologically inappropriate to decide this in advance. Participants may understand authenticity differently, reject the concept entirely, or offer language I have not considered.

A related tension emerged when putting Ragan's Evidence-Based Voice Pedagogy alongside ASSEMBLE. I had previously understood Ragan's triangulation of research evidence, practitioner expertise and learner goals primarily as confirmation of my approach. Today I began asking a more difficult question: *What actually counts as evidence when deciding whether pedagogy is inclusive?*

Acoustic and physiological evidence can tell me important things about vocal function and the likely consequences of particular behaviours. My professional experience can help me interpret and teach that material. But neither tells me whether an intervention feels appropriate, identity-affirming or sustainable to somebody else.

Lived experience is therefore not simply 'feedback' added after expert knowledge. In this study it may constitute a different form of evidence about the pedagogical encounter.

What I Learned

The most significant learning today is that inclusive terminology does not guarantee inclusive pedagogy.

I need to remain alert to the possibility that apparently positive concepts – including authenticity – can become prescriptive if their meanings are predetermined.

I have also begun to understand evidence-based practice less as a hierarchy in which published research sits at the top and more as a negotiation between different forms of knowledge. This does not mean treating all claims as equally reliable. Rather, different forms of evidence answer different questions.

Acoustic evidence can tell me what happened acoustically.

Participant experience can tell me something very different about what that experience meant.

Implications for the Research

The pre- and post-engagement interviews should continue to leave 'authenticity' open to participant definition rather than supplying a researcher-generated definition.

This also reinforces the decision not to measure participant voices against predetermined acoustic targets. The research question concerns participants' experience of pedagogy, not whether the prototype successfully moves voices towards an externally determined sound.

More broadly, I need to distinguish carefully throughout the dissertation between what the literature establishes, what I infer through synthesis, and what remains to be explored with participants.

Reflective Research Journal – Entry 2

The 'Actor' changes the question (*To be or not to be...*)

Activity / Focus

Continued development of the literature review, focusing on embodiment, sustainability and the distinction between gender-affirming communication work and performance voice.

Reflective Analysis

One of the clearest developments today was recognising that I have perhaps not foregrounded the word **actor** strongly enough.

The research has always been designed for trans and non-binary actors, but there is a danger that the literature review could become a study of gender-affirming voice generally and only reintroduce performers at the end. Working across the literature today made it clearer that being an actor changes the pedagogical problem.

An actor does not necessarily need one voice.

Actors may need to move between characters, contexts, qualities, accents, energies and expressive states. Their voices are used repeatedly under rehearsal and performance conditions. Vocal choices may sometimes move deliberately away from everyday identity. This complicates the idea that a successful gender-affirming performance voice is simply one that consistently sounds like the performer's everyday self.

I found myself arriving at a different formulation:

The actor may need sufficient agency, flexibility and sustainability to make expressive vocal choices without losing ownership of those choices.

This feels important.

It shifts the emphasis from arriving at a voice towards developing a relationship with vocal possibility.

Sustainability has also begun to mean something broader to me. I have previously used it partly in the conventional sense of sustainable vocal function – not creating damaging or fatiguing behaviours. That remains important. However, for this research, sustainability may also concern whether a practice remains possible within a performer's actual life.

Can they engage when tired?

Can they shorten something?

Can they stop?

Can they return after several days without being told, explicitly or implicitly, that they have failed (ie, in audition situations)?

Can their voice practice accommodate rehearsal demands and fluctuating emotional or physical capacity?

This connects unexpectedly strongly with the earlier decision to remove streak-based engagement from the prototype. What initially appeared to be a user-experience decision now looks increasingly like a pedagogical one.

Practitioner Position

This section also forced me to confront my own embodied practitioner knowledge.

My experience as an actor, director and voice practitioner gives me instincts about warm-up, progression, pacing and performance demands. Those instincts are useful. They are also assumptions.

Practice-as-research does not give practitioner intuition immunity from criticism.

The prototype is therefore partly a material representation of what I currently believe about good practice. Participant engagement gives those beliefs somewhere to meet resistance.

This changes how I understand criticism of the prototype. A participant finding something unhelpful would not necessarily represent a failure of the artefact. It might reveal an assumption I could not see while designing it.

What I Learned

The actor is not a demographic qualifier attached to the research. **Performance is part of the research problem.**

I also need to distinguish:

- embodied knowledge generated by the participant through vocal exploration; and
- embodied practitioner knowledge that I bring into the design.

Both matter, but they are epistemologically different.

Implications for Practice and Research

The literature review should contain a distinct performance-focused movement rather than allowing actor training to disappear beneath the larger gender-affirming voice literature.

The post-engagement interviews should also explore whether the prototype feels relevant specifically to performance rather than merely whether participants find the exercises useful.

This may eventually influence future iterations of the prototype by making expressive flexibility and performer context more explicit.

Reflective Research Journal – Entry 3

When pedagogy becomes interface

Activity / Focus

Completed the literature-review argument map by examining digital pedagogy, user-centred design, participatory refinement and the final research gap.

Reflective Analysis

The strongest idea to emerge today was surprisingly simple:

When pedagogy becomes interface, pedagogical values have to become design decisions.

I have known throughout the project that the app's language and navigation matter, but I had not articulated quite how completely the digital environment translates teaching philosophy into architecture.

In a room with a learner, I can observe hesitation. I can change an exercise halfway through. I can explain something differently. I can notice tiredness. I can tell somebody that stopping is absolutely fine and mean it relationally in that moment.

An app cannot reliably do those things.

Therefore, things that might remain implicit within in-person teaching must become visible within the system.

Agency becomes the ability to skip something.

Safety becomes an accessible route to stop.

Sustainability becomes session length and pacing.

Non-coercion becomes the absence of punishment for disengagement.

Accessibility becomes more than a statement of values; it becomes text size, contrast, captions, navigation and cognitive load.

Inclusivity becomes the words on the screen.

This also revealed a contradiction that I need to keep alive throughout the research: A self-directed application appears to remove pedagogical authority, as no teacher stands beside the learner telling them what to do. But the designer has already decided what appears on the screen.

I decide which exercises exist. I decide what choices are available. I decide what a session looks like. I decide which words appear on the buttons.

Removing the visible teacher does not remove authority.

It can simply hide authority inside the design.

That feels particularly important when considered alongside Ahmed, Kim and Hoffmann's work around authenticity and authority in voice-training applications.

From Validation to Refinement

This thinking clarified why Module 6 cannot simply be usability testing or confirmation that the app 'works'.

Module 5 allowed me to construct something that I could argue was theoretically inclusive.

But I am the person who chose the theory, interpreted the theory and designed the prototype.

There is a circular danger in then evaluating the artefact against the same principles and declaring that it satisfies them.

Participant experience interrupts that circle.

The most useful question is therefore not:

'Did I successfully build an inclusive app?'

It is:

'What happens when something designed to embody inclusive pedagogy is encountered by the people it claims to support?'

That distinction has clarified the importance of **refinement** rather than **validation**.

It has also made me more careful about the word 'co-design'. Participants are going to contribute actively to evaluation and refinement, and their experiences may materially reshape the prototype. However, they were not involved in determining the original research question or creating its first conceptual architecture. Describing this as full co-design would overstate their role.

Precision here feels ethically important rather than merely semantic.

What I Learned

The central gap in the research is not simply a shortage of apps.

It is the gap between **theoretical intention and lived encounter**.

Existing literature can offer principles for inclusive pedagogy. It can identify characteristics of voice, potential consequences of training, culturally responsive practices and useful design approaches.

What it cannot establish in advance is whether those principles remain inclusive when translated into a self-directed interface.

That requires another person's experience.

Implications for the Study

This has given me what currently feels like the intellectual hinge of Module 6:

The literature can tell me what inclusive pedagogy intends. It cannot, by itself, establish whether inclusion survives its translation into a digital encounter.

The role of participants is therefore not to approve my work.

It is to expose it.

Their responses may affirm some decisions, complicate others and reveal things I have not thought to ask.

That is beginning to feel less like a threat to the integrity of the prototype and more like the point of the research.

Reflective Research Journal – Entry 4

Designing the pre-engagement interview: Creating space for what I do not yet know

Today I began designing the Pre-Engagement Semi-Structured Interview Schedule. What initially seemed like a fairly practical task – deciding what questions to ask participants before they encounter the prototype – became a much more significant moment of methodological reflection.

My Module 6 proposal already identifies several areas for the pre-engagement interviews: participants' previous experiences of voice training, perceptions of sustainability, relationships with digital learning tools and expectations of inclusive pedagogical practice. At the same time, however, my Module 5 research has already established a substantial theoretical and pedagogical framework for the prototype. I am not approaching these interviews as a researcher without expectations. I am aware that I already have ideas about autonomy, safety, embodiment, authenticity, reflection, non-prescriptive language, accessibility and sustainable practice.

This presented an important question:

How do I explore those areas without inadvertently teaching participants the answers I expect to hear?

That feels particularly significant because this project is intended to move from theoretical modelling towards participatory engagement.

My Module 6 proposal explicitly positions the next stage as one of refinement rather than validation, where lived engagement can expose tensions, blind spots, and weaknesses in the prototype. If my interview questions merely reproduce the assumptions established during Module 5, there is a risk of constructing an elegant echo chamber: asking questions that invite participants to confirm the framework I have already created.

Rather than beginning with my concepts, I want to begin with the participant.

The emerging sequence is:

voice and self → previous voice-training experiences → performance context → authenticity → sustainability → digital learning → supportive/inclusive practice → expectations and hopes → open invitation

I think this progression is important. The participant is first invited to establish what voice means to *them*, before I introduce questions connected with the research.

The first question therefore became:

‘To begin, could you tell me a little about your relationship with your voice as it is now?’

I deliberately do not begin by asking about gender, voice modification, dysphoria, vocal goals or what somebody might want to ‘change’. Doing so would immediately establish a particular conceptual frame around their voice. Instead, I want participants to determine what is significant.

The same principle influenced the question about previous training. Rather than asking directly whether participants valued ‘agency’, for example, agency sits quietly within an optional probe about how much choice they felt they had. If choice was significant, it can emerge. If it was not, I should not manufacture its significance.

This distinction feels methodologically important: I can explore a concept without naming the concept.

Authenticity: allowing the concept to be challenged

Perhaps the most revealing example was the question about authenticity.

Authenticity occupies a central position within my existing research. Yet precisely because it matters to *my* conceptual framework, I need to resist assuming that participants understand or value it in the same way.

The question therefore became:

‘When you think about a voice feeling *authentic* to you, what does that mean – if anything?’

The words ‘**if anything**’ suddenly felt very important.

They create permission for disagreement.

A participant may understand authenticity very differently from me. They may regard authenticity as contextual, fluid or performative. They may prefer another concept entirely. They may even say, 'I hate the word authentic.'

Rather than presenting a problem for the research, that would constitute valuable data.

I realised that genuine participatory refinement requires the possibility that participants may challenge not only the prototype's implementation, but also the language and assumptions on which I have built it.

Keeping the actor visible

Another important decision was to include a specific question about voice in performance:

'How does your voice relate to your work or experience as an actor or performer?'

This feels essential.

My Module 6 proposal identifies comparatively limited attention to sustainable expressive practice within professional performance environments and argues that voice is shaped not simply by acoustic characteristics but by identity, affect, fatigue, creative demand and relational context.

There is therefore a danger that a study involving trans and non-binary actors could gradually become a more generic study of gender-affirming voice.

I need to keep asking:

*What is particular about the **actor** in 'trans and non-binary actor'?*

Rehearsal, character, repeated performance, vocal load, expressive range and the relationship between everyday and performed voice may all matter. I should not assume how they matter, but the research needs to create space for participants to tell me.

Sustainability and returning rather than succeeding

The sustainability question also brought me back to an important design decision from Module 5: rejecting conventional streak mechanics and achievement-oriented engagement in favour of allowing users to return to practice without judgement.

One optional interview probe asks:

‘What would make you more likely to return to a voice practice after time away?’

I find myself increasingly interested in *return* as a pedagogical idea.

Sustainable practice may not mean perfect consistency. It may involve interruption, adaptation, rest and return.

Again, however, the interview should not tell participants this. I want to discover whether their experiences support, complicate or reject that interpretation.

Participants should not have to speak like researchers

Another useful realisation concerned the phrasing of the questions:

‘What do you think an inclusive digital voice pedagogy should look like?’

I now think this would be a mistake.

It asks participants to perform the conceptual work of the researcher and requires them to engage with academic terminology that belongs to my research framework rather than necessarily to their lived experience.

Their role is not to provide me with polished theories of digital pedagogy.

Their experiences are knowledge.

My responsibility as researcher is to bring those experiences into critical dialogue with the scholarship. The question therefore became much more ordinary and, I think, much more useful:

‘Thinking about voice training or exploration more broadly, what helps an experience feel supportive and appropriate for you?’

From the responses, I may later identify ideas connected with agency, psychological safety, inclusive language, autonomy, identity affirmation or ASSEMBLE. But participants do not need to use my vocabulary for their experiences to matter.

Silence as part of the method

The ninth and final question may ultimately be one of the most important:

'Before we finish, is there anything about your voice, your experiences of voice work, or what you would want from this kind of resource that I haven't asked about but that you think is important?'

My note to myself after this question is simply:

Stop talking. Open silence is an open invitation for the participants.

The previous eight questions inevitably represent *my* decisions about what might matter. The ninth creates an explicit opportunity for the participant to move outside that architecture.

Perhaps the most valuable finding will emerge from something I did not think to ask.

Emerging methodological reflection

Today's work has crystallised something I want to carry throughout the project:

A participatory research instrument should contain the possibility of proving the researcher's assumptions are incomplete.

The purpose of these interviews is not to discover whether participants agree with Module 5.

It is to discover what happens when the theoretical and pedagogical ideas developed through Module 5 encounter lived experience.

That distinction feels fundamental.

The emerging interview architecture now has a deliberate logic:

- **Questions 1-3:** establish lived and performance context.
- **Questions 4-5:** explore authenticity and sustainability without defining them for participants.
- **Question 6:** establish experiences and preferences around digital learning.
- **Question 7:** explore supportive and inclusive pedagogical conditions without imposing theoretical vocabulary.
- **Question 8:** capture expectations before exposure to the prototype.
- **Question 9:** create space for whatever my framework has failed to anticipate.

This also creates the potential for a particularly valuable comparison later:

what participants **expected** → what they **encountered** → how they **experienced** it → what proved **useful** → what was **absent** or **problematic** → what should be **refined**.

This feels particularly well aligned with the wider trajectory of the research:

expectation → engagement → reflection → refinement.

Note for future analysis

I want to be particularly alert to moments when participants:

- ★ Use language different from mine;
- ★ Reject or complicate concepts such as 'authenticity' or 'sustainability';
- ★ Identify needs absent from Module 5 framework;
- ★ Distinguish performed voice from everyday voice in unexpected ways;
- ★ Describe apparently contradictory needs;
- ★ Identify something I had regarded as inclusive or supportive as unhelpful;
- ★ Introduce experiences or concerns that my interview schedule did not anticipate.

These should not be treated as awkward data to be fitted back into the framework, as they may be precisely where the research becomes most valuable.

Reflective Research Journal – Entry 5

RA-05: Designing for reflection, critique and refinement

In developing the post-engagement reflection, I became increasingly aware that the post-engagement interview should not function simply as an evaluation of whether participants 'liked' the prototype, nor as a measure of whether it successfully changed their voices. Its purpose is much more interesting: to explore **what happens** when my pedagogical intentions become someone else's **lived experience**.

The interview therefore flows in the following movement:

overall experience → usability → pedagogy → choice, comfort and safety → identity and authenticity → performance → sustainability → critique and refinement → open reflection.

An important principle emerged during its development: design intention and participant experience are not necessarily the same thing.

I may have designed a feature to support autonomy, safety or inclusive practice, but that does not mean it will necessarily be experienced in that way. Rather than treating any discrepancy as a failure, I need to recognise it as potentially valuable data.

I was also conscious of maintaining the distinction between evaluation and efficacy. This research is not asking whether the prototype produces a 'better' or more gender-congruent voice. The interview instead asks whether participants found the pedagogy understandable, relevant, supportive, sustainable and meaningful to them. This keeps the focus on lived engagement and pedagogical refinement rather than predetermined vocal outcomes.

The relationship between RA-04 and RA-05 now feels particularly valuable. RA-04 captures participants' existing experiences, understandings and expectations before encountering the prototype; RA-05 creates opportunities to explore what happened after those expectations met practice. This may allow me to consider relationships such as:

expected ↔ experienced

intended ↔ perceived

conceptual ↔ embodied

supportive ↔ problematic

known ↔ newly discovered

The question I find particularly significant is:

'If you could change the prototype for the next person who uses it, what would you change – and what would you make sure stayed?'

This feels like an important enactment of the participatory intention behind the research. Participants are not merely being asked to report their experiences; their insights are explicitly invited into the continuing refinement of the artefact.

As with RA-04, I have deliberately ended with an open question that allows participants to move beyond the conceptual boundaries I have established:

'Is there anything I haven't asked because I didn't know to ask it?'

That sentence and, more broadly, the need to ask such questions, feels more and more important to my development as a practitioner-researcher, as I believe a powerful measure of a successful interview lies not in how comprehensively my questions capture what I already believe matters, but in how much space they leave for participants to reveal what I have failed to see.

RA-05 therefore feels less like the end of the participant-engagement process and more like the point at which the next iteration of the pedagogy can begin.

Reflective Research Journal – Entry 6

Participant-Informed Feedback Shaping the Prototype (and Pedagogical Depth)

Activity / Focus

Today I reviewed feedback from four participants who have been engaging with Vocal Compass and considered how their experiences should shape the next stage of the prototype. Their responses helped identify what was already working effectively, alongside areas where the app required greater pedagogical depth, clarity and relevance to different performance contexts.

Reflective Analysis

The review confirmed that the prototype's strongest qualities are its tone, ethical restraint and commitment to autonomy. Across the four perspectives, the absence of gendered targets, scoring, recording and corrective language was experienced as reassuring. The visible options to pause, skip, adapt, repeat or stop also supported the principle that voice exploration should remain voluntary and self-directed.

However, the review exposed a significant gap between ethical framing and pedagogical depth. Although the app communicated care effectively, its exercise content remained general and preliminary. More experienced performers would have had limited information about why an activity might be useful or how it could connect to rehearsal, narration, self-tape, spoken word, stamina or recovery. Less technically experienced users might also have encountered terms such as resonance, placement and intonation without enough accessible explanation.

This made me recognise that inclusive pedagogy cannot be achieved through language and safeguards alone. A resource may avoid prescriptive or gendered instruction while still offering too little substance, choice or contextual relevance. In trying to protect participants from correction and normative outcomes, I had risked making the pedagogy overly cautious. Ethical restraint must not become pedagogical thinness.

In response, I have expanded the exercise library into twenty-five activities across the five existing packs: Resonance Options, Placement and Texture, Breath and Flow,

Intonation and Expressivity, and Embodied Voice. Each pack now contains five interconnected forms of invitation: noticing, exploring, comparing, applying and integrating. This creates a gentle internal progression without requiring users to complete the packs in order or treating progression as movement towards a preferred voice.

I also revised the exercise structure so that each activity explains why it may be useful, provides a time estimate, offers concise guidance and includes adaptations, a performance connection, safety information and an open reflective prompt. The aim was to respond to the desire for greater technical credibility and professional relevance without introducing a single correct interpretation.

Performance applications now include contexts such as text, narration, self-tape, devised work, rehearsal and recovery, while remaining optional and reversible.

The process also deepened my understanding of accessibility. Accessibility is not only a question of text size, contrast or keyboard navigation; it also concerns how easily a participant can understand the purpose of an activity, adapt it to their capacity and relate it to their own context. Silent, seated, reduced-effort and imagination-based options were therefore embedded within the exercises rather than presented as secondary alternatives.

Some feedback remains unresolved:

The app does not yet create different sessions in response to choices such as 'low energy or 'short on time', and it still needs clearer information about account data, study-specific confidentiality, audio/visual demonstrations, technical definitions and protection against accidental journal deletion. Keeping these issues visible is important because expanding the exercise library should not be presented as resolving every concern.

This development marked a further shift in my role from trainer or director towards facilitator and steward. Rather than deciding which vocal destination a participant should pursue, I am trying to design conditions in which they can notice, compare and choose. The revised library therefore represents more than an increase in content. It reflects a more mature understanding of inclusive digital voice pedagogy as an architecture of informed choice.

The feedback also renewed my attention to video demonstrations as a possible source of clarity and guidance. When I first created the app, integrated video did not appear to be an option, and I unintentionally let the idea fall by the wayside. Participants' requests for clearer guidance, demonstrations and a wider range of ways to engage with the exercises have prompted me to explore how video might now be incorporated. Base44 has since developed the capacity to support such features, making this a more realistic possibility for the next stage of the prototype.

This exposed a gap in my technical knowledge. I approached the project as an MA Voice Pedagogy researcher rather than as a coder or app-design engineer, but this does not remove my responsibility to consider carefully how the pedagogy is communicated through the digital format. In retrospect, I should have investigated accessible visual guidance more fully from the outset. The feedback has therefore encouraged me not only to expand the exercise content, but also to develop my technical understanding and consider how optional videos—with captions, transcripts and clear controls—might support participants without presenting a single voice or performance as the correct model.

Reflective Research Journal – Entry 7

Emerging methodological insight

While considering how to analyse participant interview data using Reflexive Thematic Analysis (Braun & Clarke, 2021), I realised that the findings were naturally extending beyond thematic interpretation.

Initially, I intended to identify themes and discuss them in relation to the literature. However, as I began coding participant feedback, it became increasingly apparent that each finding also suggested a practical refinement to the prototype itself.

This led me to articulate a five-stage analytical sequence:

Evidence → Interpretation → Prototype Refinement → Theoretical Alignment → Contribution to Knowledge

I realised this sequence does not merely organise the findings section; it reflects the mechanism by which the study generates knowledge. Participant experiences are interpreted reflexively, translated into pedagogical refinements, critically situated within existing theory, and ultimately contribute to a broader understanding of inclusive digital voice pedagogy.

This insight also revealed that the study is contributing not only an evaluation of a prototype but a potentially repeatable methodology for the iterative development of ethical, participant-centred digital voice pedagogy.