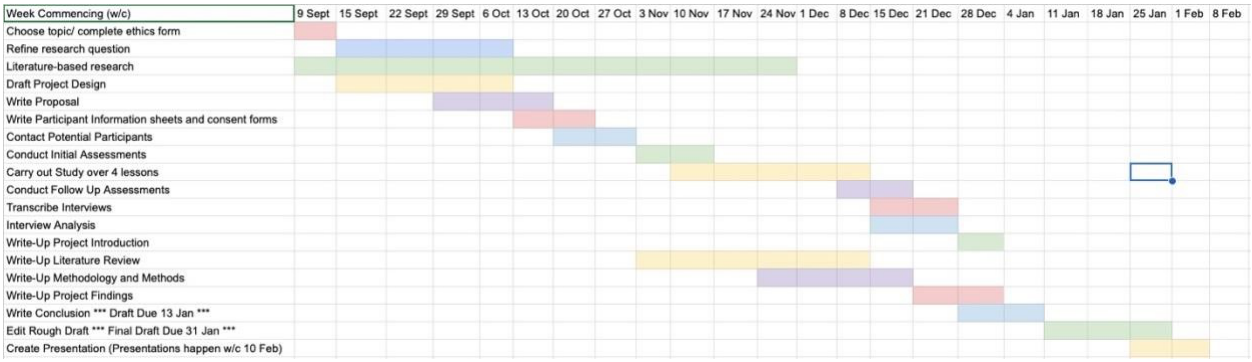
Elisabeth Shoup
Student Number 2246691
Module 3 paper
Word Count: 7377

- **Context:** For more than two decades, sports science researchers have been investigating the effects of two major attentional foci on motor learning (Strick et al., 2023; Wälchli et al., 2016; Wulf et al., 1998; Wulf & Lewthwaite, 2016). They are external, in which the performer focuses on the result of his action, and internal, in which he focuses on how the action feels in the body. Voice researchers have begun to explore this (Atkins, 2017; Crocco et al., 2020; Maas et al., 2008a; Treinkman, 2021, 2022a, 2022b). I will be investigating the effects of internal foci on feelings of self-efficacy among my private students in NYC, NY.
- **Justification:** Both sports science and voice researchers have touted the overall benefits of external foci on motor learning (Atkins, 2017; Treinkman, 2022a; Wulf et al., 1998; Wulf & Lewthwaite, 2016a). However, sports science research contains ongoing debates about when, how, and why differing foci are most useful (Aiken & Becker, 2022; Collins et al., 2016; Gottwald et al., 2020; Toner & Moran, 2014) which have included best practices for self-efficacy (Wulf et al., 2015) These debates do not seem to have traversed into voice literature except for speculatively ((Maas et al., 2008a; Treinkman, 2022a). Importantly, the debates over best uses of differing attentional foci do not seem to have been contextualized with the prevalence of body awareness literature available to singers and voice teachers (Nelson and Blades 2018; Malde et al. 2020) with the same rigor that it is being explored in the sports world.
- **Intended Impact:** I would like to understand if exercises relating to body mapping and kinesthetic awareness, which are forms of internal foci of attention, can help my students develop stronger feelings of self-efficacy in their practice, testing claims made by Malde (Malde et al., 2020) and

adding complexity to claims made by Wulf and colleagues (1998, 2015, 2016), and to the writings of Treinkman (2022). I am further hopeful that this will give them skills to better discriminate between efficient and inefficient attempts that they make when they are practicing.

- **Outlined Intention:** I will be conducting a mixed methods study on the phenomenology of movement, looking at how 3 of my private students experience developments in their awareness of and any resulting impacts on their feelings about their practicing. For each participant, I will take an initial assessment. During this time, I will have them draw a picture of what they think the inside of their vocal tract looks like to document their current body map. I will then have them take a scaled survey and perform a semi-structured interview, which will seek to document body awareness and feelings of confidence when they sing. Over the next 4 lessons, I will do pre-practice exercises with them that are adapted from Malde (2020) and Nelson (2018). I will then repeat the assessment after these lessons, having them sing a different phrase than they did in the first session to check for skill transfer.
- **Project Timeline:**



- **Ethics and Insider Research:** I am the regular teacher of all the participants I will study and have noticed that some of them want to please me in regular lessons. Because of this, I can envision a situation in which some participants attempt to please or genuinely help me by reporting progress where there is none. This would create an ethical complexity in any study (Walliman 2005); however, in one where I am

specifically interested in their body awareness and confidence, it would negate the entire point. Additionally, we are dealing with building awareness in potentially sensitive parts of the participants' bodies, which risks being triggering (van der Kolk 2000). Both issues can be mitigated with proper communication from me prior to the start of the study (Walliman 2005). In the consent forms, I will make clear that my participants can drop out of the study at any point, for any reason, and that I value their honest answers over any attempt at pleasing me.

- **Individual Learning Outcomes:**

- Gain a foundation in motor learning theories
- Gain experience doing direct research with my students
  - Learn how to do quantitative data analysis

Introduction:

Acquisition of the motor skills necessary to consistently deliver technically efficient, artistically satisfying vocal performances is a subject that is increasingly appearing in literature (Crocco et al., 2020; Mcilwaine et al., 2010). Past classical vocal students routinely studied with their teachers 2-3 times per week in preparation for a career; modern students of all genres cannot typically afford to do this at the rates most voice teachers need to charge to support themselves. It is therefore incumbent upon teachers and students to develop methods for assuring the student understands what was communicated to them; how this is different from what the student was doing before; and what the student needs to do to permanently affect this change in their own singing. It is this last point that is most crucial. Permanent change in the neurological signaling the development of a motor skill, is the result of repetitions that, over time, encode an action in the brain(Fitts & Posner, 1973; Leech et al., 2022). Learners are more likely to undertake this work when they believe in their abilities to organize and execute an action or series of actions (Artino, 2012; Bandura, 1997; Williams & Rhodes, 2016). This study, will test whether development of internal awareness can be a reliable tool for helping students build their self-efficacy. It is theorized that improvement in self-efficacy

can lead to increased amount of time practicing because the students will have a reality-based belief that their work is leading to improvements. Learning outcomes for the researcher are gaining experience conducting and presenting a mixed- methods study, including conducting and interpreting interviews, interpreting visual evidence, and conducting and statistically analyzing a survey.

Literature Review

Coined by Albert Bandura, self-efficacy is now recognized as a critical component in skill learning. “Unless people believe they can produce desired effects by their actions,” says Bandura (Bandura, 1997, p. 3) “they have little incentive to act.” This has implications for complex skill learners. Practice, repeated, active engagement with material (Fitts & Posner, 1973), stimulates a learner’s brain to encode motor signaling (Leech et al., 2022); the learner must believe that their efforts will push them towards their goals if they are to expend the energy to make this active engagement. Bandura (Bandura, 1997) lists several sources of self-efficacy: the first and most powerful source is enactive mastery experiences, where the learner experiences themselves succeeding. After this, are vicarious experiences, where a learner witnesses another relatable learner succeed; verbal persuasion, where a learner receives encouragement and feedback from an outside source; and psychological affective states, where a learner’s feelings influence beliefs about their abilities. Of particular interest to educators are strategies for enabling enactive mastery experiences for learners (Artino, 2012).

Gabrielle Wulf emphasizes this in her work leading up to and including the OPTIMAL theory of motor learning (Wulf et al., 1998, 2015; Wulf & Lewthwaite, 2016). OPTIMAL stands for “Optimizing performance through intrinsic motivation and attention for learning (Wulf & Lewthwaite, 2016, p.1382).” Wulf
connects motor learning and of self-efficacy. Her work emphasizes the supremacy of an external locus of attention (Wulf et al., 1998). For a golfer, this could be focusing on where he wants the ball to land; for a singer, it could be a desired acoustic output (Maas et al). In both situations, the learner would receive feedback about how far they were from success at a task. For a singer, the feedback could be whether they achieved an

intended acoustic target. This could come verbally from a teacher, or visually from a computer program and is called Knowledge of Results (KR) (Mcilwaine et al., 2010; Moinuddin et al., 2021; Saemi et al., 2012). Wulf and Lewthwaite theorize that external focus stimulates the brain to signal muscle coordination in a way that is experiential rather than verbal, known as implicit learning, which leads to procedural memory (Paradis, 1994; Wulf & Lewthwaite, 2016). The learner will likely not be able to describe what they did, but they will train their motor learning with minimal mental energy expenditure and experience enactive mastery early in the learning process. Wulf and Lewthwaite further speculate that the human brain may be evolutionarily primed for this goal-oriented type of learning.

Wulf and Lewthwaite's work, however, has led to an intense debate, with one paper calling their recommendations dangerous (Collins et al., 2016), and another stating that there is little evidence in the greater literature to back up their claims (Parma et al., 2024). On the other end of the attentional spectrum is an internal locus. An important form of this is physical awareness or the ability to sense where the body is in space, how the different parts are connected, and how to move them (Wulf et al., 1998). It requires an internal locus of attention. The golfer would focus on the contraction of their leg muscles; the singer on the tongue, for example. The evaluation would be categorized as Knowledge of Performance, or KP (Muacevic and Adler, 2021), which evaluates the quality of the action and does not account for goal achievement: our singer's immediate concern would be the quality of the tongue movement. An internal locus of attention is likely to engage explicit learning, resulting in declarative knowledge. This learner can explain exactly what they are doing (Gidley Larson & Suchy, 2015). While the behavior may become fully automated, the cost was that they spent a great deal of time and energy using working memory, short term memory in which a limited amount of new information is held and manipulated (Fitts & Posner, 1973), in the initial phases of learning. This could mean that, rather than experiencing self-efficacy early in the learning process, the learner went through a phase of deliberate, difficult learning, and built their self-efficacy slowly and over time. This could result in an association between singing and difficulty. Some research on athletes speculates that this results in

greater mastery and continued growth even after one has reached an automated stage of learning (Toner & Moran, 2014; Gottwald et al, 2020), while a meta-analysis was inconclusive (Kal et al., 2018).

While bringing potent connections between self-efficacy and motor learning to the fore, Wulf and Lewthwaite (2016) do not address this, and other questions; the longest study cited in the OPTIMAL Paper lasts only 30 days. They further do not address different types or locations of internal focus. There is agreement that both healthy and maladaptive types of internal focus exist, though no agreement on how to evaluate it (Mehling et al., 2009), and that the where the focus is located changes its effectiveness (Strick et al., 2023). Further, neuroscientist John Krakauer insists that, for learning and, therefore, mastery, to take place over time, there must be some level of declarative learning taking place (Stanley & Krakauer, 2013). In motor learning, this is likely indicative of some internal locus of attention. Surely it is possible to build self-efficacy by creating conditions for enactive mastery using declarative learning and an internal locus of attention.

Compared to the conversation in general motor learning literature, voice literature is in its infancy. Maas et al., (2008), speculated that an external locus could be superior in voice therapy patients, though as of that writing, there were no studies on the subject. A study of classical singers had expert listeners evaluate singers who had received external and internal cues and found superior tone quality from the external cues (Atkins, 2017). None of the voice-oriented works linked locus of attention to feelings of self-efficacy, and none stretched over prolonged periods, being concerned with the immediate effects of a direction. However, agreement that this is an important line of inquiry exists (Treinkman, 2021, 2022a, 2022b). Further, a separate, large body of literature touts the benefits of body awareness for singers. This has not been examined within the context of attentional loci and learning types (Malde et al., 2020; Nelson & Blades, 2018). This body of literature, from Alexander Technique, Feldenkrais, and Body Mapping, claims that developing internal awareness improves agency by giving body users control over what they are using and the amount of effort they are exerting, which

seems to meet Bandura's criteria for developing agency. Based on these findings, practical research testing for a connection between an internal locus of attention and increased self-efficacy in singers seems needed.

Research Methodology

This study is rooted in the idea that values are human responses to a value-neutral nature (Hart, 1971). In examining singers' feelings around their self-efficacy, we must first acknowledge the tools with which they are working: the body and physics of the natural world. Those realities exist, whether humans understand their complexities, placing us in a 'being' ontology (Gray, 2011).The physical structures of the body, the pathways through which the brain sends and receives signals about movements, and the brain's creation and labeling of affective states, are treated as objective facts. From here, we can study and value those labeled affective states, or emotions, as responses to a value neutral nature. This is a standpoint that is supported by a constructivist epistemology (Walliman, 2005), which posits that our realities are built on perceptions of a world that exists with or without them.

Study Design and Data Presentation

This Mixed Methods study seeks a link between internal locus of attention and feelings of self-efficacy in adult male amateur singers. This is primarily deductive in nature; as outlined in the literature review, it should be possible to create the conditions for self-efficacy with an internal locus of attention. The constructivist epistemology lends itself well to mixed methods and a pragmatic paradigm, as it is well within its logic to study changes in perception relating to physiological realities. It therefore does not violate its own logic (Greene et al., 1989; Maarouf, 2019) to study these perceptions qualitatively, using interviews and collection of participant generated images, and quantitatively, with a scaled survey evaluating participants feelings of self-efficacy and internal awareness. They were then led through a series of awareness exercises at the beginning of the subsequent four voice lessons, and then re-evaluated them with the same methods, making this a Longitudinal Study (Audulv et al., 2022).

Interviews

The interviews were semi-structured. Given the deductive nature of the study, the goal was to be able to keep them targeted towards the subjects of agency and self-efficacy while having freedom to pursue lines of inquiry that arose during the interview (Walliman, 2005). The interview consisted of five main questions (See Appendix A), follow-up questions that depended on the answer to the first question, and one additional question for the second interview would target changes they might have experienced during the study. The interviews were coded deductively using both Protocol Coding, in which the codes have previously been established by other researchers, and Hypothesis Coding, in which a theory is being tested (Saldaña, 2013), and which Saldaña lists as an appropriate type of coding for Qualitative Longitudinal Research. The themes are Bandura's conditions for self-efficacy.

Condition/Theme:	**Criteria:**
Enactive Mastery	• Experiences practicing and believing that they knew that this would help them improve (Bandura, 1997) • Changes in amount of time practicing • Positive experiences performing
Emotional and Affective States	• Feelings around performing or practicing that either aided or hindered desire to practice; these are strongly affected by experiences of Enactive Mastery (Bandura, 1997)

Vicarious Experiences	• Experiences of witnessing a peer succeeding at a relevant task (Bandura, 1997)
Social Persuasion	• Encouragement from outside the learner; can be from a teacher or a peer. (Bandura, 1997)

Participant Generated Images:

This is based on Malde's description of body mapping (Malde et al., 2020), where a singer's internal awareness is related to their ability to visualize and draw structures being used, an idea that is not limited to this text (Shin et al., 2022; Tanaka, 2021). The purpose was to see if there was a correlation between changes in self-efficacy and changes in drawn maps of the vocal tract, which in theory would be indicative of changes in internal awareness. To recreate presumed, in-lesson conditions by Malde, participants were given 15 minutes to 'draw their vocal tracts.' Participants were deliberately not shown many anatomical images of the vocal tract, as the goal was to learn about subjective mapping. Coding was done with Analytic Memos on Visual Data, with descriptions serving the purpose of "language-based memos that accompany visual data (Saldana, 2013, p. 52)."

Survey:

The quantitative portion was a Likert style survey that was loosely based on self-efficacy tests (Chen et al., 2001). The survey design consisted of thirteen statements that the participants could strongly disagree or strongly agree with on a scale of 0-5. In retrospect, choosing an even number of data points was a mistake, as it biases the response towards one end or another given that there is no middle point (de Rezende & de Medeiros, 2022). The first eight questions in my survey specifically had to do with my participants' feelings of self-efficacy while they were singing. The last 5 questions concerned an internal locus of attention. See **Appendix B** for Survey Questions.

Sample Selection:

Both convenience sampling, in which all participants volunteered (Gill, 2020; Walliman, 2005) and purposive sampling, in which a deliberate, criteria meeting population was chosen from among the volunteers (Gill, 2020; Palinkas et al., 2015; Walliman, 2005), were used. The criteria were two: that the lesson take place online, as opposed to in a hourly rented studio space, so that there would be timing flexibility if the exercises took slightly longer than planned; that the participants be either all testosterone voiced, or all estrogen voiced to reduce variables. All participants are adult, testosterone- voiced, amateur singers.

Insider Research and Ethics

The research took place within my voice studio, making me an insider researcher (Costley, Elliot, and Gibbs, 2010). This has many implications both ethically and for the results of the study. My participants are dependent on me for information for how to improve their singing, which puts me in a position of power over them. It is possible that participants will attempt to please or 'help' me by telling me what I want to hear (Walliman, 2005). It is also possible that my position of power over them could have pushed them to participate in activities that they were not comfortable with, such as drawing. Finally, there was some risk of increased awareness of the tongue and jaw area having an emotionally or physically triggering consequence (van der Kolk, 2000). Mitigation was attempted by providing clear information sheets and consent forms **(Appendices D and E)** that explained what the study was attempting to achieve, and that also explained the measurable aspects of the study. To protect the privacy of the participants, any identifying information was omitted from the interview transcripts, and their names were replaced with numbers chosen at random: PAR75, PAR82, and PAR91.

Exercise Selection:

There were many choices in the vocal tract for where to have participants draw their attention: the larynx, articulators, breath apparatus, the tongue and the jaw. The latter

two were chosen because the participants had experience working with these structures. The hope, therefore, was that this could enhance and give new perspective on what they were already doing, rather than being directed to a part of their body that they weren't accustomed to concentrating on. Additionally, both structures have significant implications for the rest of the vocal tract: they affect laryngeal suspension and articulator usage (Nair, 2021; Vilkman et al., 1996), which in turn can affect airflow (Bozeman, 2013). Finally, the innervation of these structures is likely closer to that of limbs compared to other parts of the face and vocal tract (Adatia & Gehring, 1971; Ishiwata et al., 2000); it is speculated that internal locus of attention and body mapping work, with the ensuing explicit learning that it emphasizes, might be more applicable to this area than, for example, to the larynx or the face (Cobo et al, 2017; Hernandez-Morato et al, 2023). See **Appendix C** for specific exercises.

General Results

Interviews

PAR75 and 92 described changes in both internal awareness and self-efficacy. This was mostly due to enactive-mastery experiences had during practice, which in turn made emotional associations around practice more positive, which seemed to make them want to practice more, reflecting Bandura's predictions (Bandura, 1997) and Lewis' research (Lewis et al, 2015). PAR91 additionally had a vicarious experience that motivated him to practice more, and Social Persuasion experiences around his singing. PAR82 did not describe having had any enactive mastery experiences, but did demonstrate a theoretical belief that practice would improve his singing. The differences in the participants' experiences and results raise important questions about situations in which internal locus of attention exercises are effective for student singers.

Participant Generated Images

All three participant generated images changed from before and after the study. While it was difficult to correlate the images with exact descriptions of felt changes and changes in the singing, the images still seemed to depict significant developments in participants'

concepts of sound source, resonance, and locus of attention. In particular, all three depicted an increased space in the back of the throat, and PAR75 and PAR82 seemed to indicate an increased vibrational senses at the laryngeal level.

Survey

Quantitative Analysis:

Inferential statistics were used to test whether the changes from the survey were random, or whether they might be able to be used to predict a similar change in a larger population (Walliman, 2005). For each question, the null hypothesis (Walliman, 2005) was that there would be no difference in the means. The alternative hypothesis was that there would be a difference. The survey questions evaluate two major subjects: the participants' feelings of self-efficacy around their singing (questions 1-8), and their degree of internal awareness (questions 9-13). Both positive and negative questions were included in the survey in the hopes that this would encourage participants to think more deeply and add more detail to results (Steinmann et al., 2024). Questions can be found in **Appendix B**.

The means of two data sets were being compared. These data sets showed the same group measured twice after having received the same intervention. The most common statistical test for this situation, where it is unknown which direction the change will be in, is a 2-tailed T-Test (Frey, 2023). This was performed in Excel on each of the questions, looking for a change in the means from each question from before and after the study.

The p-values, or the significance threshold against which the T-Test is measured (Kryzwinski & Altman, 2013) are summarized in the table below, including whether the null hypothesis can be rejected at a 5% p-value. T Stat values have been rounded to the 1/10 decimal point, one level of detail farther than the whole numbers on my survey, and P-Values to the 1/100th decimal point.

QUESTION	MEAN BEFORE	MEAN AFTER	MEAN OF DIFFERENCE	T STAT	P-VALUE	REJECT NULL HYPOTHESIS AT 5% SIGNIFICANCE LEVEL?
1	3.3	4.6	1.3	-4	.06	No
2	2	.3	1.7	2.5	.13	No
3	2	1.6	.4	1	.42	No
4	3.6	4.3	.7	-2	.18	No
5	1	1.6	.6	-1	.42	No
6	4	4	0	N/A	N/A	No
7	1.6	1	.6	.5	.63	No
8	3.6	3.3	.3	0.5	0.67	No
9	1.6	2.6	1	-1.7	0.23	No
10	3	2.6	.4	0.21	0.42	No
11	3.6	3.6	0	0	1	No
12	1.3	3.6	2.3	-2.6	0.12	No
13	3	4	1	N/A	N/A	No

Due at least in part to the small sample size, none of the P numbers were smaller than 5%, meaning that the mathematical threshold necessary for statistical significance was not passed, the null hypothesis could therefore not be rejected. However, a few of the questions produced results that merit further examination. Question 1, for example, had a P value that came very close to the 5% significance level, at .06, meaning that there is only a 6% likelihood that the change was random. Questions 2 and 12 likewise had P values of .13 and .12, respectively. Even though the null hypothesis was maintained in this study, 3 questions having come close to 5% gives good reason to repeat the survey with a larger population. There would ideally be enough participants and therefore data points to create a scatter plot for each question. The means for each participant

additionally changed across the tests, which will be further discussed in the participant breakdowns.

Breakdown by participant:

PAR75

Interview

Self-Efficacy

In the first interview, PAR75 exhibited very low self-efficacy around his singing. For example, when asked about his practice schedule, he responded that “It’s hard to make time” to practice and that he practiced 3-4 times of “maybe 10 to 15 minutes” while he was doing something else like cooking or driving, which is neither focused nor challenging. When asked what it might take to change this, he answered, “getting technically more proficient makes it more enjoyable to practice,” which seemed to connect an anticipated emotional state with perceived self-competency. This is easily in line with Bandura’s theory (Bandura, 1997) . When asked to define what ‘getting technically more proficient’ meant, he answered, “hitting the techniques that we work on during our sessions and having them ingrained in our mind and be able… to hear the difference.” It was interesting that he wanted to ‘hear the difference’ between the old way and the new way, clearly trying to understand the link between the process and the result of his work. This, however, seemed very theoretical for him and not at all an experience of enactive mastery. Further, he equated ‘technical awareness’ with movement and internal awareness and sound goals to, ‘just singing.’

He provided insight when we discussed whether he felt in control of his voice when he sings:

> “I would say yes… pretty strongly. But as we discovered during the lessons certainly the wrong way. I’m trying to control [the] voice rather than… Understanding where the control lay… I’ve always approached singing as one

way. Understanding vocal control in one way and you know, so we have to work beyond."

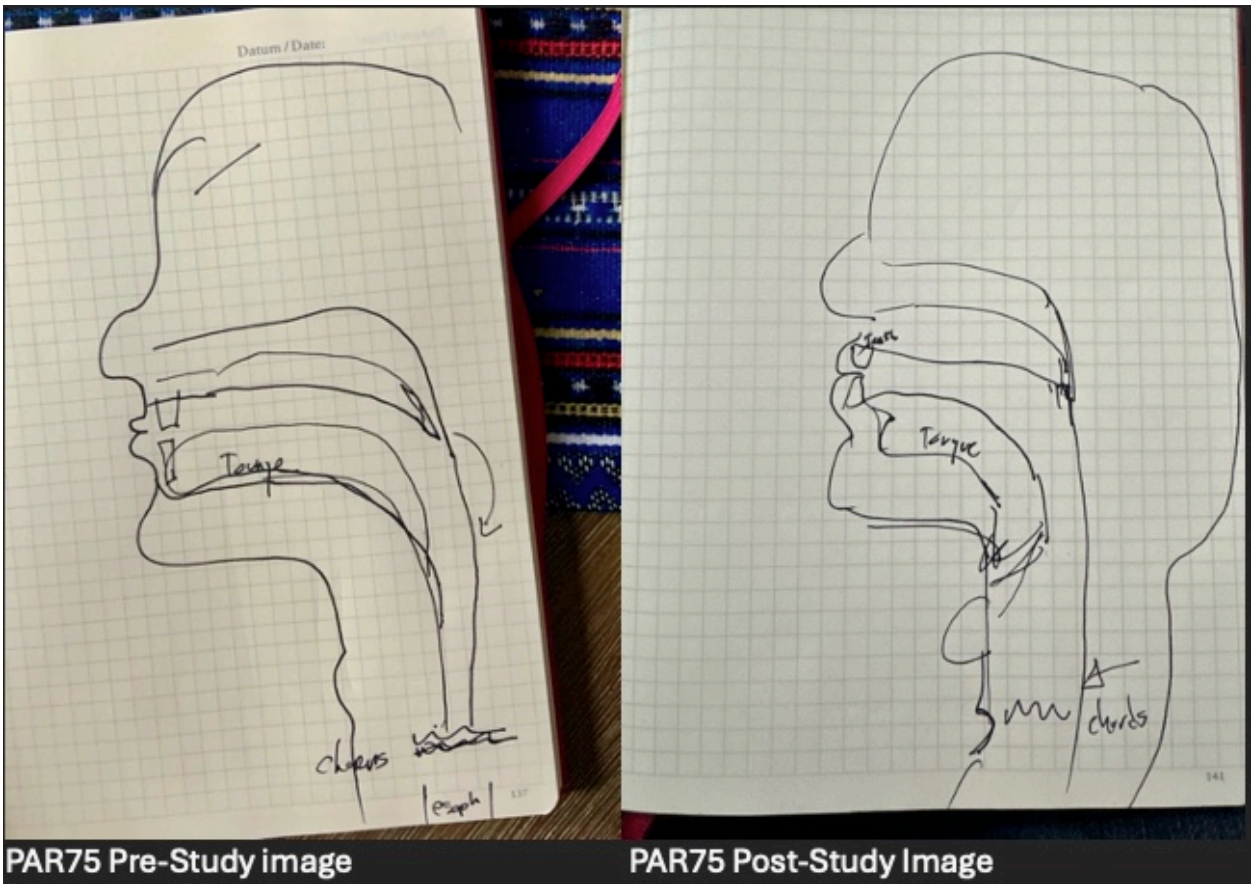
This is a concise summary of maladaptive body awareness (Mehling et al., 2009). For context, when he initially started studying, he had difficulty singing in tune, due to muscle tension habits. The work of reversing these habits has occasionally left him feeling helpless. This highlights a potential gap in the Self-Efficacy literature: how do educators manage students who feel autonomy and self-efficacy, but whose sources for it are maladaptive? How do we re-define control and autonomy for this population so that they do not feel helpless? Ideally, feelings of self-efficacy would be preserved or even increased while helping them to 'understand where the control lay,' which is likely what Malde (Malde et al., 2020) and other body awareness educators are striving for. It is a situation that voice educators frequently find themselves in, evidenced both anecdotally and by the body of literature dedicated to correcting 'vocal faults. (McKinney, 1994)'

In his second interview, PAR75 reported a significant increase in enactive mastery experiences and positive emotions around singing, which was best indicated by our discussion about his practice habits. He went from singing casually for 10-15 mins 3-4 times a week to "doing something every day… even if it is just consonant work," which describes something more deliberate, effortful, and mindful than 'just singing.' When I asked him to elaborate on why this change had happened, he responded, "I'm more confident in the overall technique that I'm using… I know the sound I'm making is closer to the end goal." He clearly believes that he can 'produce the desired effect by his actions, which is increasing his 'incentive to act' (Bandura, 1997). He very specifically attributed this to having more awareness of his jaw and tongue and felt that it was opening up his resonance: sensitizing him to feelings and movements seems to have helped him understand with greater specificity how to achieve what he wanted. Further, true to his predictions, he experienced fewer emotional barriers around practicing, as believing that he was working in a way that was improving his singing made the experience more pleasant. This is in line with Malde's predictions (Malde et al., 2020),

and echoes research stating that physical activities are practiced more when they are enjoyable (Lewis et al., 2015). It is further a clear example of a person shifting from maladaptive control to healthy control (Mehling et al., 2009).

Drawings:

Of the three, PAR75 drew the most anatomically correct vocal tract. Both the before and after image appear to be sagittal cross sections of the head and neck. The palate, nasal passages and tongue are all ‘correctly’ situated. I am not certain what the downward, curved arrow behind the palate is meant to signify. The vocal folds are labeled as ‘chords [sic]’ next to a wavy line that perhaps reflects a sense of vibration, and there is a bump near them in the neck that perhaps signifies the protrusion of the thyroid cartilage. There was an attempt made to label some of the body parts represented in the drawing. The parallel lines below the ‘chords’ is labeled incorrectly as the esophagus. The tongue is labeled as well.



PAR75 Pre-Study image PAR75 Post-Study Image

The second image contains several differences. The palate appears to be touching the back of the throat, or raised, in this image. The tongue is additionally angled much farther down in the throat, and these two adjustments together create a comparatively larger space between the back of the tongue and the palate, perhaps indicating a significant change in his feelings of space. The bump in the neck that was assumed to be the thyroid cartilage has turned into a large protrusion above a notch, behind which the ‘chords [sic]’ are again shown with a wavy line. This can be speculated to indicate a changed awareness of his sense of vibration, perhaps due to the increased awareness of his jaw and tongue- he is perhaps feeling a buzzing lower in his neck than previously.

Survey Results

Data analysis was completed additionally on each participant, as there were again two sets of means that could be compared before and after an intervention . The means for each participant across all the questions was calculated and a T-Test performed on both

sets of data. To account for negative questions, the numbers on those questions were reversed (questions 3, 5, 7, and 10) so a response of 0 became 5, 1 became 4, 2 became 3, and vice versa. The null hypothesis was that there would be no difference in the means across all questions; the alternative hypothesis was that there would be a difference. The means and P-Value are summarized in the table below, including whether the null hypothesis can be rejected at a 5% p-value.

Reds were reversed because negative questions		
PAR75	Survey 1	Survey 2
Q1	3	5
Q2	4	5
Q3	2	2
Q4	3	4
Q5	4	4
Q6	4	4
Q7	1	4
Q8	3	4
Q9	1	2
Q10	3	3
Q11	4	3
Q12	2	4
Q13	3	4
Sum	37	48
Mean	2.84	3.69
P Value (2 Tailed)	0.014458	
Reject Null Hypothesis?	Yes	

Unlike in the analysis across each question, the analysis for PAR75 across all questions did meet the threshold for statistical significance, meaning that there was only a 1% chance that the change in means was due to chance. This reflects the changes reported qualitatively in the interview.

PAR82

Interviews:

Enactive Mastery

PAR82, in contrast, did not describe many enactive mastery experiences in either interview; his answers to questions about performance and practice were very theoretical. He imagined that he would “just be doing his best” in a performance, but he hasn’t performed enough to compare this speculation to reality. He further described a fixed mindset (Dweck, 2016) in the first interview, stating that he was not, “super great at singing.” He practices approximately 0 to 1 times per week between lessons, which didn’t change following the study. When asked what it might take to change this, he speculated ‘some external pressure,’ which seemed to mean some kind of performance. He additionally insisted that he could be more “disciplined,” and “make his life less chaotic for a performance,” or some other external pressure, but doesn’t feel he has the “executive function” to make this happen in the absence of this. Clancy Blair (2016) defines executive function as the “ability to hold in mind information in working memory… and to flexibly shift the focus of one’s mental frame (p. 1). This is an important connection to the working memory: the act of practicing can be costly to working memory (Fitts & Posner, 1973); the act of starting to practice can be just as costly because it involves the act of shifting focus. As discussed, the major tenant of self-efficacy is that believing in the effectiveness of one’s actions will provide motivation, but as PAR82 illustrates, this is not the case for all individuals in all situations. Executive function is recognized as being negatively affected by stress (Blair, 2016) and difficulties with it can be associated neurodiversity (Mareva et al., 2024) It is within the scope of this study to consider the role that these factors may have played in this situation; where improved internal awareness and self-efficacy seem to have improved PAR75’s motivation to practice, they were apparently not sufficient to help PAR82 overcome whatever obstacles he faced in starting to practice.

Relatedly, he also lacked confidence in his ability to evaluate his singing without a teacher present, and in his ability to control his voice. The following quote is from the follow up interview after the study exercises were complete.

> “of course I have a huge amount of control. Mean I can certainly do it wrong on purpose. And there's a huge range that I have that you know that I can hit or not

> just with a pitch range but a range of outcomes I can… can produce. … But like, if you imagine all the ones that I would ever… reasonably ever use for singing, I don't know what percent of those I have access to at any given point in time… the ones I'm actually interested in the top 1% you know I only ever have half of that or very rarely."

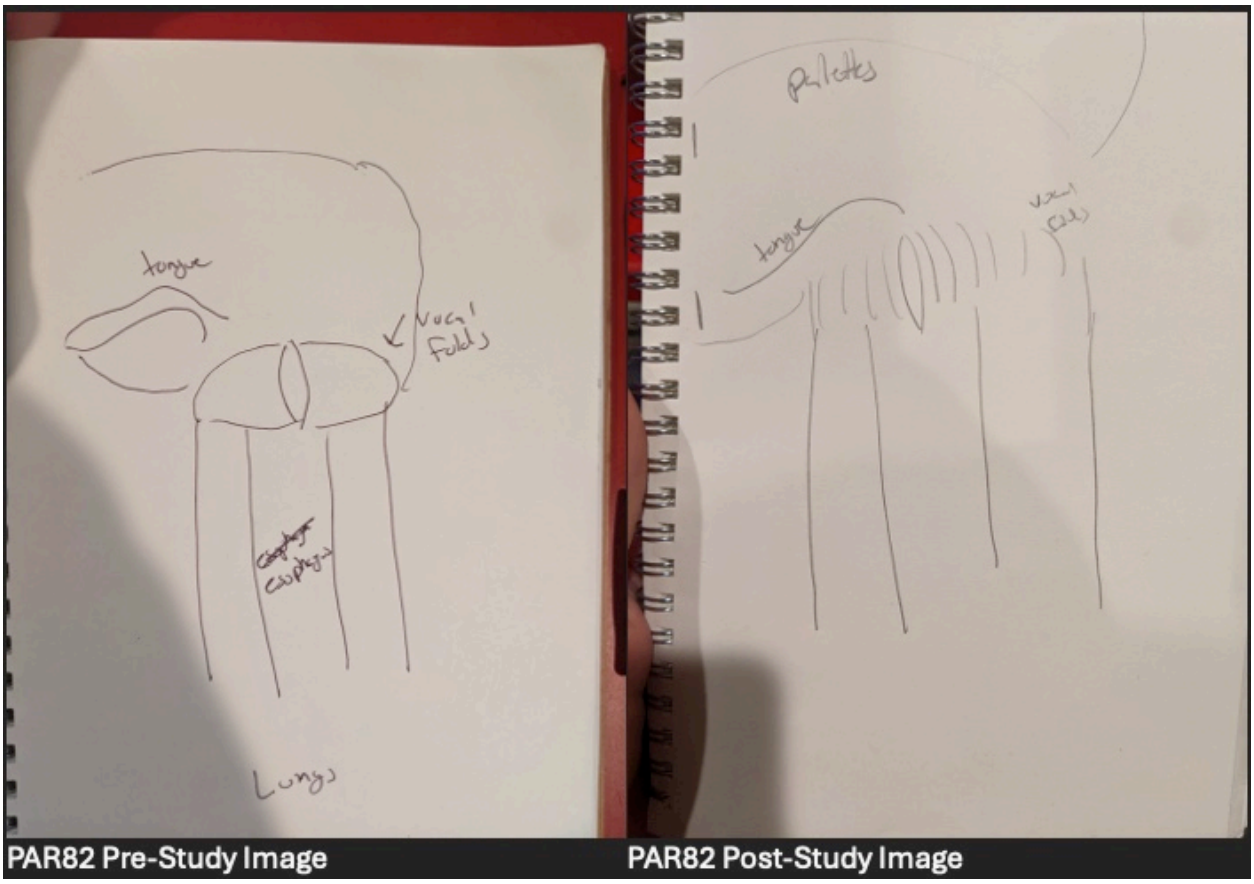
The question concerned the top 1% of outcomes, and the answer is indicative of both a lack of understanding of what those outcomes are (Crocco et al., 2020) and how to achieve them. It is again, however, outside of Bandura's admonition that learners believe in the effectiveness of their actions. "I don't mind not having that as a source of stress. It feels in the same way that… I should get my life together if I want to, like, do more practice," which seems in contrast with his stated goal of being "significantly better than the average singer." PAR82 seems to believe that, were he to act more frequently, that it would have an effect, but not understanding what to do or how to assess what he has done, combined with his self-professed difficulties with executive functioning, has prevented him from being able to prove the effectiveness of this to himself. Moreover, the exercises chosen for this study failed in helping him work past this.

Drawings:

PAR82's images, however, almost seem to contradict the lack of change described in his interview. The vocal folds are the focal point of the image and seem to sit directly on top of the esophagus, which is also labeled, though incorrectly. The tongue is relatively tiny and sits inside a comparatively huge space that I assume is the mouth.

The second image has some interesting similarities and differences from the first. The vocal folds are again the focal point, though rather than being in a discreet oval enclosure, they are now surrounded by vertical lines. These could represent feelings and awareness of vibration. I further infer based on what was labeled in the previous drawing that the two vertical lines below this represent the trachea. The 'palattes [sic] 'are labeled this time. Even though the study focused on mapping his tongue and jaw, his attention seems to have been drawn increasingly to the vibrations made by his vocal

folds. Further, he seems to be aware of much more space in the back of his tongue, which is a possible effect of developing tongue and jaw awareness.



PAR82 Pre-Study Image PAR82 Post-Study Image

Overall, changes in his body map do not seem to correlate with changes in his feelings of control, as PAR75's did. Further, PAR82 shows that changes in the body map are not necessarily indicative of changes in feelings of enactive mastery, at least during the time frame of the study, but for certain singers, may still indicate significant updates in how the body is viewed over time. Whether this could eventually lead to changes in experiences of enactive mastery and ensuing practice and learning habits may be the subject for a longer study.

Survey Results:

Data from PAR82's Survey were analyzed under the same conditions as PAR75's.

Reds were reversed because negative questions		
PAR82	Survey 1	Survey 2
Q1	4	5
Q2	4	5
Q3	3	4
Q4	4	4
Q5	4	2
Q6	4	4
Q7	5	4
Q8	4	3
Q9	3	3
Q10	2	2
Q11	2	3
Q12	2	3
Q13	4	5
Sum	45	47
Mean	3.46	3.62
P Value (2 Tailed)	0.584493	
Reject Null Hypothesis?	No	

In this situation, we again can see the interview reflected in the data. PAR82 did not report significant changes in his internal awareness or feelings of self-efficacy, and we were not able to reject the null hypothesis with his data set. Interestingly though, he scored the highest of the three in his initial survey score, though it only increased slightly in the second survey. Future research could include learning more about what affected this initial score and why it was so different from the low self-efficacy expressed in PAR82's interview. Possible areas to look at would be ways the survey and interview questions were written, or some other factor, possibly neurodivergence that had not been accounted for when the questions were written. Regardless, a larger sample size could have helped to contextualize this as either a norm or an outlier.

PAR91

Interview

Enactive Mastery

PAR91 walked into the study having had past enactive mastery experiences, which is often correlated with future enactive mastery experiences (Bandura, 1997). In his first interview, he reported having grown up performing in church with his family, and a more recent experience where he had performed karaoke. He did, however, describe a fixed mindset (Dweck, 2016) in his first interview, when discussing why he feels he is only reflective about singing or other activities after a perceived failure but not after a perceived success.

> “If you’re doing it well, you don’t think about what helps you do well… I don’t think it’s from anything tied to… singing. I think it’s just for me. It’s just like tied to my human nature of being. “ (p. 3)

He followed this up by describing how he struggles to listen to his own voice, and how he feels he needs to “get over it,” in his words or “make friends with it,” quoting the researcher from previous lessons. When asked what it would take for him to increase his practice beyond once a week, he answered, “just discipline,” echoing PAR82’s discussion of executive function, but then went on to describe how the combination of being able to play the music he sings on the piano and liking what he was singing would make him want to practice more. Looking through the lenses of enactive mastery experiences and emotional states, it seems that he was feeling less resistance when he knew he could help his singing improve by playing along with himself on the piano- an experience of enactive mastery- and generally liking his music, which would associate it with a positive emotional and affective state.

During the study, PAR91 seems to have additionally challenged some of his obstacles in these areas. In the second interview, he reported that he ‘got over himself’ and started “just listening to his own voice and making sense of it.” This is a change from his reticence in his previous interview to listening to himself. The reason was “How much improvement I see from actually doing that,” a clear instance of enactive mastery experiences providing motivation to practice, and his practice increased from ‘maybe once a week’ to twice a week for thirty minutes with additional time spent casually

working on music. He additionally had an enactive mastery experience at karaoke, noticing that his voice “didn’t sound as nervous as it had in the past,” which is a clear change from the first interview where he stated that he didn’t reflect on what he was doing in successes. He continued his trend of reflecting on what he was doing when he was successful, saying, “I know what my voice sounds like when I’m nervous, and it didn’t sound like that at all… I am surprised.” Moreover, he felt that the internal awareness he developed during the period of the study contributed to this success, saying that his agency around his singing had increased due to, “being aware of… tension a little bit more. Being aware of pushing instead of singing.” This echoes body awareness literature claims (Malde et al., 2020; Nelson & Blades, 2018) Interestingly, he also felt like his breath support engaged more as he was able to release his jaw, which could be a subject for future work.

Vicarious Experiences:

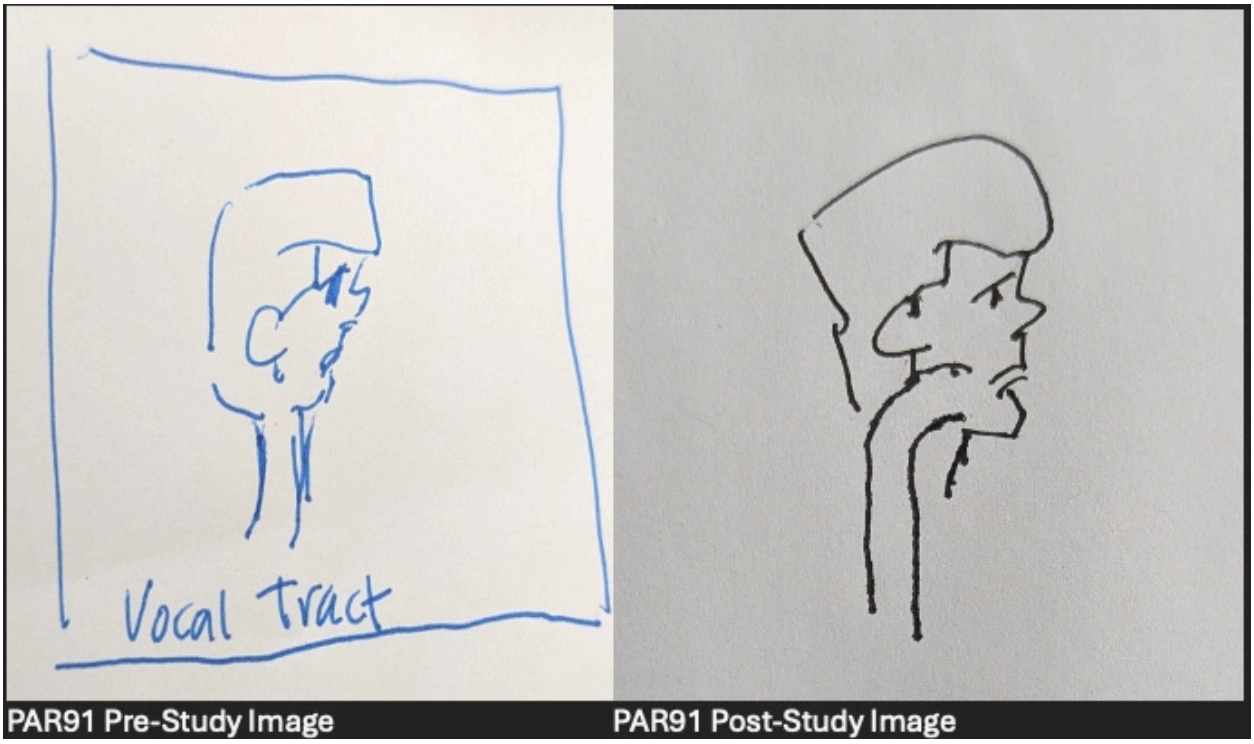
PAR91 described a vicarious experience during the study. As he was learning to record himself, he was watching a TV program where players’ practice sessions were being videoed and played back to them. He related to the improvement they experienced from this, as well as to the constant practice that they were doing. While this is not directly related to what was worked on in the study intervention, he repeatedly linked his increased awareness in his body to his willingness to watch himself and re-experience the sensations that he had felt in the lesson.

Social Persuasion

PAR91 described two instances of social persuasion. One of them occurred before the study took place, so he walked into the study with this behind him, where family members had insisted that he sing karaoke at a wedding. Another experience was with his partner’s co-workers, who had insisted he sing karaoke at a holiday party. “[My girlfriend is] like oh, [he] is great that karaoke. So she hyped this whole thing up and everyone's like, Oh my God, he's gonna sing… like, settle down there, buddy.” This was also an experience of enactive mastery because he felt improvements in his singing as he was doing it.

Drawings:

PAR91's images reflect these adjustments in his internal awareness and ensuing feelings of Self-Efficacy, and this was reflected in his drawings. Despite having emphasized in that he is a 'terrible drawer,' he added a significant change in his second drawings that seem to reflect increased release and space in his singing. The first image appears to be a silhouette of a person with short hair and a very long neck. The mouth and chin are vague but present, and the person looks like they are wearing an earring in their right ear. There is no indication of the space inside the mouth or the breathing apparatus.



PAR91 Pre-Study Image PAR91 Post-Study Image

The second image, however, has a separate set of lines that seem to indicate the trachea and perhaps space in his mouth that is separate from the neck. This perhaps reflects a statement he made during one of the exercises in the study where he was finding his teeth with his tongue: "I feel like I'm making a 3D map of my mouth!" It is perhaps further indicative of the release he felt as he developed his internal awareness.

Survey Results

As with the other two participants, PAR91's scores reflected his interview responses and images.

Reds were reversed because negative questions		
PAR91		
Q1	3	4
Q2	1	4
Q3	4	4
Q4	4	5
Q5	4	4
Q6	4	4
Q7	4	4
Q8	4	3
Q9	1	3
Q10	1	2
Q11	5	5
Q12	0	4
Q13	2	3
Sum	37	49
Mean	2.84	3.76
P Value (2 Tailed)	0.033031	
Reject Null Hypothesis? Yes		

His P-Value indicates only a 3% chance that the change was random, which, in combination with the interviews, shows clear correlation and evidence that a change happened in his responses before and after the study.

Conclusions

In this study, data was triangulated to see if changes in internal awareness could be correlated with changes in self-efficacy, with the goal of improving motivation and removing obstacles to practicing. Two participants reported improvements in their internal awareness and self-efficacy, and experienced resulting increases in practice

time and enjoyment of singing. Though overall statistical significance in the quantitative study was not achieved, three of the questions came close, and it was achieved for two of the participants when a T-Test was performed on their total means. One participant did not experience these connections, and his data feeds into some critiques about whether the concept of building self-efficacy is a paradox: people who already experienced it, as PAR91 had, are able to access and build on it much more than people who haven't. There seems to be a high bar for a student who has not experienced self-efficacy to find the 'executive function,' as PAR 82 stated, to put the initial energy into starting his enactive mastery experiences. This set of exercises was not able to cross that bar for him. Clearly though, for some portion of the student population, deepening ones' understanding of internal physical awareness can create or feed conditions for self-efficacy, which resulted in increased practice, improvement, and reward from training their voices.

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Appendix A:

Semi-Structured Interview

1. What do you think about while you sing?
    a. Do you think about the same things when you practice as when you perform?
    b. Why do you think this is?
2. What are your practice habits like?
    a. How many times a week do you practice?
    b. (*If fewer than two times*) What would it take to increase this?
3. What are your feelings about singing when there is not a teacher present?
    a. Why do you have these feelings?
    b. (*If feelings are negative or fearful in nature*) What would need to happen for this to change?
    c. (*If feelings are positive in nature*) How do you feel that you developed these feelings?
4. What feelings do you have around performing?
    a. Why do you have these feelings?
5. Do you feel in control of your voice while you sing?
    a. Why do you feel this way?
6. Have your feelings of agency changed during this study?

Appendix B

Scaled Survey

Question 1: I am aware of whether I am singing how I want to while I am singing

Question 2: I cannot tell if I am singing the way I want to while I am singing.
Question 3: I am not in control of how well I sing.
Question 4: I am in control of how well I sing.
Question 5: I feel powerless to change how I am singing once I start.
Question 6: I feel confident that I can adjust while I am singing.
Question 7: I can never recover from a technical mistake while singing.
Question 8: I can easily recover from a technical mistake while I am singing.
Question 9: I am mostly thinking about my body movements while I am singing.
Question 10: I am mostly thinking about my sound goals while I am singing.
Question 11: I am thinking about physical feedback and sensations while I am singing.
Question 12: I am aware of my tongue movements while I am singing.
Question 13: I am aware of my jaw movements while I am singing.

Appendix C

Pre-Practice Exercises

(Malde 2020, p. 179)

1. Exercise 5-4

   “Mapping the Jaw Closers

Bring your head into balance, release your tongue so that it is touching your lower teeth all the way around, and allow your jaw to release so that there is a little space between your teeth.

- Put your fingers flat on the sides of the jaw at the back. Now clench your teeth lightly. The muscles you feel bulging are the masseter muscles. The harder you clench, the bigger the bulge.
- Release, then put your fingers on your temples and clench lightly to feel the temporalis muscles engage.
- Release, then activate the masseter and the temporalis muscles just enough so that your teeth are barely touching. Notice how little effort is involved.”

2. Exercise 5-6

   (Malde 2020, p. 182)

“Jaw movement in articulation

With your jaw in a neutral position (jaw closers and jaw openers released), place your hands on the sides of your jaw upon your masseter muscles.

- Run through the alphabet slowly in your regular speaking range. You will sense that very little movement of the jaw closers is necessary. There is no consonant that requires the teeth to close completely.
- Repeat the exercise speaking in your higher singing range. Does the higher range require more jaw movement? If so, how much?"

3. Exercise 5-9
   (Malde 2020, p. 189)

"Mapping Tongue Tension
One way to explore movements of the tongue that are detrimental to singing is to exaggerate them. Pull your tongue far back into your throat, and then release. Push your tongue down onto your larynx, and then release. Push your tongue against your teeth, and then release." 'Notice if any of these movements feel familiar to you.'

4. Exercise 5-10
   (Malde 2020, p. 189)

"Mapping the independence of the Jaw and Tongue…

- Say the consonant [l] with a neutral vowel. If you have a mirror, look to see whether or not your jaw moves. If you don't have a mirror, rest your hands gently on the sides of your jaw to feel any movement. You should be able to produce the [l] without any movement of the jaw.
- When you can do this easily in your normal speaking range, try a higher pitch and a more open jaw position, Your tongue can still move independently of the jaw to produce the [l].
- Now try the same exercise with [k] ~~and [ɳ]~~ and a neutral vowel." Skipped second one

5. From Nelson and Blades (2018, p. 34)

   “Move your tongue to the lower right hand corner of your mouth. Touch the farthest back tooth in your mouth that you can with ease. Then move up and touch the top of this tooth. Is it still easy? If not, move the tongue closer to the center of the mouth until you are touching the tooth without strain. Do not go farther with your tongue than you can go with ease. Many people can touch the inside of their last molar but when they move to the top there is a slight sense of strain. If this is so, move to the next tooth.

   Explore the top of this tooth. What does it feel like? Explore the top of each tooth in turn until you have gone as far to the left side of your mouth as you can comfortably. Pause and rest for a moment.”

This was modified slightly to use the tongue without using the jaw

Appendix D

Consent Forms (Names have been redacted)

PAR75

Connections between resonator awareness and feelings of self-efficacy in student singers

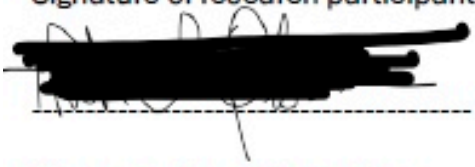
Consent to take part in research

- I, [redacted]..... voluntarily agree to participate in this research study.
- I understand that even if I agree to participate now, I can withdraw at any time
- I understand that I can refuse to answer any question involved during the research process without any consequences of any kind.
- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
- I understand that participation involves my taking a verbal and written assessment at the beginning of the study and at the end of the study and performing a brief series of exercises at the beginning of 4 of my lessons in between the assessments.
- I understand that I will not benefit directly from participating in this research.
- I agree to my interview being audio-recorded or filmed (deleted as appropriate).
- I understand that all information I provide for this study will be treated confidentially.
- I understand that in any report on the results of this research my identity will remain anonymous.
- This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.
- I understand that disguised extracts from my interview may be quoted in the final dissertation and in a presentation.
- I understand that if I inform the researcher that myself or someone else is at risk of harm they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.
- I understand that signed consent forms and original audio recordings will be retained in a password protected Google Drive Folder. Only Elisabeth Shoup will have access to the information. The information will be in this folder until the University of Wales Trinity St. David Exam Board confirms the results of the dissertation, approximately March 2025, after which point it will be stored on an external hard drive.
- I understand that a transcript of my interview in which all identifying information has been removed will be retained for two years following the date of the Exam Board, approximately March 2027. I understand that under freedom of information legalization I am entitled to access the information I have provided at any time while it is in storage as specified above.
- I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

Researcher:
Elisabeth Shoup
BA/BM Oberlin College/Conservatory
MA (In progress) University of Wales Trinity St. David/ The Voice Study Centre
Elisabeth.shoup@gmail.com
518-210-4396

Advisor:
Claire Thomas
The Voice Study Centre
MA, MEd (RCS), PGDE, PGCPSE, CTABRSM
Senior Lecturer
Claire@voicestudycentre.com

Signature of research participant

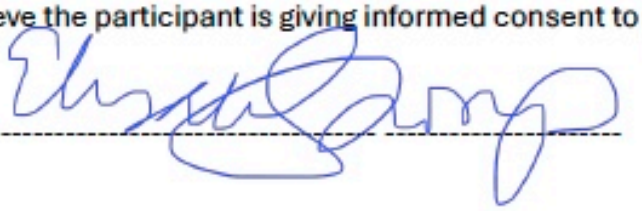


Signature of participant Date

11/R/2024

Signature of researcher

I believe the participant is giving informed consent to participate in this study



Signature of researcher Date

11/9/2024

PAR82

Connections between resonator awareness and feelings of self-efficacy in student singers

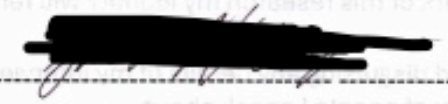
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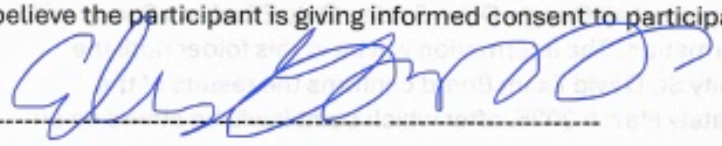
Signature of research participant



Signature of participant Date 10/30/2024

Signature of researcher

I believe the participant is giving informed consent to participate in this study



Signature of researcher Date 10/30/2024

Connections between resonator awareness and feelings of self-efficacy in student singers

Consent to take part in research

- I, [redacted] voluntarily agree to participate in this research study.
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PAR91

Researcher:
Elisabeth Shoup
BA/BM Oberlin College/Conservatory
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518-210-4396

Advisor:
Claire Thomas
The Voice Study Centre
MA, MEd (RCS), PGDE, PGCPSE, CTABRSM
Senior Lecturer
Claire@voicestudycentre.com

Signature of research participant

[redacted]

11-11-2024
Signature of participant Date

Signature of researcher

I believe the participant is giving informed consent to participate in this study

Signature of researcher Date
11 | 11 | 2024

Appendix E

Participant Information Sheet

Participant Information Sheet

Project Title:

Connections between resonator awareness and feelings of self-efficacy in student singers

Principal Researcher: Elisabeth Shoup
Email: Elisabeth.shoup@gmail.com

I am inviting you to take part in a research study. Before deciding whether you would like to take part it is important that you understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. You will be given a copy of this information sheet to keep.

What is the purpose of the study?
I am studying if exercises relating to body mapping and movement awareness can help voice students develop more confidence in their practicing.

Background:

There is a lively debate in sports science research about where the performer's attention should be focused when they execute a complicated physical action. One body of literature touts the benefits of thinking about the intended result of an action, which is called external focus of attention. Examples of this include attempting to hit a golf ball farther and jumping higher. One of the many claims made by proponents of external focus is that it improves feelings of self-efficacy, or confidence, in the performer. Another body of literature is highly sceptical of this and documents high performing athletes almost universally reporting internal focus, where the performer thinks about the individual muscles they are using, in addition to the external focus. They claim that it is a combination of these points of attention that gives athletes the confidence to continually improve their crafts.

While some of these concepts have begun to be explored in voice research, the literature has been heavily weighted towards external focus and further, has not studied best practices for when to use established internal focus tools like Body Mapping, Feldenkrais, and Alexander Technique. My goal with this study is to examine these internal focus tools on my students' feelings of confidence about their singing and practicing.

This pilot study is part of my master's degree with the Voice Study Centre through the University of Wales Trinity St. David.

What kind of study is this?

This is a mixed methods study. I am looking for both qualitative and quantitative data that will give me insight into student singers' feelings of confidence, and am seeing if I can correlate this with their body maps and their quality of singing.

Why have I been invited to take part?

I am looking for three adult (18 y.o.+) students from my studio who are willing to participate in this study. I am looking for students of differing goals and ability levels.

Do I have to take part?

No. Participation in this project is entirely voluntary. You may withdraw at any stage. You will not be penalized in any way should you refuse or withdraw, and refusing/withdrawing will have no effect on your regular lessons with me.

What will be done with my data?

Signed consent forms and original audio recordings will be retained in a password protected Google Drive Folder. Only Elisabeth Shoup will have access to the information. The information will be in this folder until the University of Wales Trinity St. David Exam Board confirms the results of the dissertation, approximately March 2025, after which point it will be stored on an external hard drive.

A transcript of your interviews in which all identifying information has been removed will be retained for two years following the date of the Exam Board, approximately March 2027. Under the United Kingdom freedom of information legalization you are entitled to access the information at any time while it is in storage as specified above.

What will happen if I take part?

- The study will consist of an hour long assessment at the beginning, a brief (5 minute) series of pre-practice exercises immediately before your next 4 lessons, and a repeat of the assessment at the end.
- During the assessment, you will be asked to draw a picture of your vocal tract, complete a brief scaled survey, complete a semi-structured interview which will be recorded, and sing a bit of a song, which will be videoed.

What are the possible disadvantages and risks of taking part?

While all the exercises chosen are designed to increase body awareness and autonomy, this does preclude the possibility that developing awareness in the tongue and jaw might be emotionally triggering in some way. Additionally, it is possible that redirecting your attention in this way may make you feel like you are backsliding technically.

What are the possible benefits of taking part?

The hope, of course, is that you will feel more aware of the movements of your resonators and because of this feel more in control of your singing, while you are singing. This can lead to greater confidence in your practicing and performing.

How is the project being funded?

Elisabeth is self-funding any expenses that are incurred, namely the costs of practice rooms and recording devices.

Who is supervising this project?

Claire Thomas
MA, Med (RCS), PGDE, PGCPSE, CTABRSM
Senior Lecturer, The Voice Study Centre
Claire@voicestudycentre.com

Can I reach out to Elisabeth with questions?

Yes! Please reach out to Elisabeth.shoup@gmail.com

Thank you for taking the time to read this information sheet.

Appendix F
Ethical Approval Form

Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

PG2 / E1 FORM

APPLICATION FOR ETHICAL APPROVAL

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

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

This document is also available in Welsh.

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

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

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

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

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

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

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

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

SECTION A: About You (Principal Researcher)

1	Full Name:		Elisabeth Ruth Graves Shoup			
2	Tick all boxes that apply:		Member of staff:	☐	Honorary research fellow:	☐
	Undergraduate Student	☐	Taught Postgraduate Student	X	Postgraduate Research Student	☐

3	Institute/Academic Discipline/ Centre:	WAPPAR
4	Campus:	Carmarthen
5	E-mail address:	elisabeth.shoup@gmail.com
6	Contact Telephone Number:	+01-518-210-4396

	For students:	
7	Student Number:	2246691
8	Programme of Study:	MA Professional Practice (Voice Pedagogy)
9	Director of Studies/Supervisor:	Louise Emmanuel/Julie Crossman/Debbie Winter/Claire Thomas

SECTION B: Approval for Research Activity

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

SECTION C: Internal and External Ethical Guidance Materials

	Please list the core ethical guidance documents that have been referred to during the completion of this form (including any discipline-specific codes of research ethics, location-specific codes of research ethics, and also any specific ethical guidance relating to the proposed methodology). Please tick to confirm that your research proposal adheres to these codes and guidelines. You may add rows to this table if needed.	
1	**UWTSD Research Ethics & Integrity Code of Practice**	X
2	**UWTSD Research Data Management Policy**	X
3	**The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research**	X

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

1	Institution					
2	Contact person name					
3	Contact person e-mail address					
4	Is your research externally funded?		**YES**	☐	**NO**	☐

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

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

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

SECTION E: Details of Research Activity

1	Indicative title:	Use of body mapping exercises to develop kinesthetic awareness in singers, with the goal of improving retention of skills.		
2	Proposed start date:	26th September, 2024	Proposed end date:	31st January, 2025
	Introduction to the Research (maximum 300 words per section) **Ensure that you write for a <u>Non-Specialist Audience</u> when outlining your response to the points below:** • *Purpose of Research Activity* • *Proposed Research Question* • *Aims of Research Activity* • *Objectives of Research Activity* Demonstrate, briefly, how **<u>Existing Research</u>** has informed the proposed activity and explain • *What the research activity will add to the body of knowledge* • *How it addresses an area of importance.*			
3	**Purpose of Research Activity** There is much research to support the idea that all singers can imitate sounds and memorized sound concepts. Anecdotally, however, it is easy for these same singers to get off track with imitation and use muscles that reduce vocal efficiency in the singers' effort to imitate a sound. The purpose of this is to see if body mapping can improve kinesthetic awareness and if this improved awareness can lead to greater freedom to imitate sounds without worry of developing bad habits between lessons. (this box should expand as you type			

4	**Research Question** Can short term development of body mapping and kinesthetic awareness in the resonators and articulators lead to both improved improved awareness and measurable improvements in sound?
5	**Aims of Research Activity** To examine if short term development of kinesthetic awareness can lead to improvements both in student perception of structures and measurable improvements of certain criteria in singing.
6	**Objectives of Research Activity** To see if exercises I use can help my students self report a greater feeling of awareness of their bodies and vocal tracts. I will do this by investigating student responses in interviews. To learn how to use Voce Vista so that I can use it to obtain qualitative data about changes in my students' sounds. To find out if other voice teachers are able to hear changes in my students' singing. (this box should expand as you type)
	Proposed methods (maximum 600 words) Provide a brief summary of all the methods that **may** be used in the research activity, making it clear what specific techniques may be used. If methods other than those listed in this section are deemed appropriate later, additional ethical approval for those methods will be needed. You do not need to justify the methods here, but should instead describe how you intend to collect the data necessary for you to complete your project.
7	This will be a mixed methods project. I am interested both in observable, objective changes and in adjustments in the singers' perceptions of their bodies. I intend to work with the students over the course of six, hour long lessons. 1) **Interviews,** both structured and unstructured, via Zoom or phone, at the beginning, middle, and end of the process to asses the students' described awareness of their bodies and their singing. 2) **Video and audio recordings** of the students during lessons 1, 3, and 5 singing a phrase of a song. 3) **Observations:** I and another teacher will analyze differences in posture and movement 4) **Correlational Study:** I will run the audio through Voce Vista in an attempt to correlate perceived changes with external, measurable ones.
	Location of research activity Identify all locations where research activity will take place.
8	Video and audio recordings will be made at The National Opera Center 330 7th Ave, 7th Floor, NYC, NY, USA; Interviews will take place via phone; data collection and review will take place at 400 Fort Washington Ave, Apt. 4B, NYC, NY 10033, USA.
	Research activity outside of the UK If research activity will take place overseas, you are responsible for ensuring that local ethical considerations are complied with and that the relevant permissions are sought. Specify any local guidelines (e.g. from local professional associations/learned societies/universities) that exist and whether these involve any ethical stipulations beyond those usual in the UK (provide details of any licenses or permissions required). Also specify whether there are any specific ethical issues raised by the local context in which the research activity is taking place, for example, particular cultural and/or legal sensitivities or vulnerabilities of participants. If you live in the country where you will do the research then please state this.

9	I live and will do my research in the USA, in New York City. I could not find stipulations in documents from Health and Human Services that went beyond those required in the UK. Please see: https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html, https://clinregs.niaid.nih.gov/country/united-kingdom/united-states#. Research at universities, whether funded or not, requires review and approval by the Institutional Review Board (https://www.hhs.gov/ohrp/education-and-outreach/about-research-participation/protecting-research-volunteers/principal-regulations/index.html). Guidelines for informed consent do not go beyond those in the UK; neither does research into vulnerable populations. I am not aware of any specific ethical issues raised in my local context. *(this box should expand as you type)*

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

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

SECTION F: Scope of Research Activity

	Will the research activity include:	**YES**	**NO**
1	Use of a questionnaire or similar research instrument?	☐	X
2	Use of interviews?	X	☐

3	Use of focus groups?	X	☐
4	Use of participant diaries?	☐	X
5	Use of video or audio recording?	X	☐
6	Use of computer-generated log files?	☐	X
7	Participant observation with their knowledge?	X	
8	Participant observation without their knowledge?		X
9	Access to personal or confidential information without the participants' specific consent?	☐	X
10	Administration of any questions, test stimuli, presentation that may be experienced as physically, mentally or emotionally harmful / offensive?	☐	X
11	Performance of any acts which may cause embarrassment or affect self-esteem?	☐	X
12	Investigation of participants involved in illegal activities?	☐	X
13	Use of procedures that involve deception?	☐	X
14	Administration of any substance, agent or placebo?	☐	X
15	Working with live vertebrate animals?	☐	X
16	Procedures that may have a negative impact on the environment?	☐	X
17	Other primary data collection methods. Please indicate the type of data collection method(s) below.		
	Details of any other primary data collection method: (this box should expand as you type)	☐	☐

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

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

SECTION G: Intended Participants

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

	Who are the intended participants:	**YES**	**NO**
1	Students or staff at the University?	☐	X
2	Adults (over the age of 18 and competent to give consent)?	X	☐
3	Vulnerable adults?	☐	X
4	Children and Young People under the age of 18? (Consent from Parent, Carer or Guardian will be required)	☐	X
5	Prisoners?	☐	X
6	Young offenders?	☐	X

7	Those who could be considered to have a particularly dependent relationship with the investigator or a gatekeeper?		X
8	People engaged in illegal activities?	☐	X
9	Others. Please indicate the participants below, and specifically any group who may be unable to give consent.	☐	☐
	Details of any other participant groups: (this box should expand as you type)		

	Participant numbers and source Provide an estimate of the expected number of participants. How will you identify participants and how will they be recruited?	
10	How many participants are expected?	*3*
11	Who will the participants be?	*My private students*
12	How will you identify the participants?	I intend to have 3 singers in my studio at different levels of singing: an adult beginner, an intermediate student, and an advanced one. All will be singers who work in person, not online.

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

	(this box should expand as you type)

	Information for participants:	YES	NO	N/A
24	Will participants be paid?	☐	X	☐
25	Is specialist electrical or other equipment to be used with participants?	X	☐	☐
26	Are there any financial or other interests to the investigator or University arising from this study?	☐	X	☐
27	Will the research activity involve deliberately misleading participants in any way, or the partial or full concealment of the specific study aims?	☐	X	☐
28	If YES to any question, please provide full details			
	I will be using a microphone attached to my iPhone to make video/audio recordings. I will also be using Voce Vista. *(this box should expand as you type)*			

SECTION H: Anticipated Risks

	Outline any anticipated risks that may adversely affect any of the participants, the researchers and/or the University, and the steps that will be taken to address them. If you have completed a full risk assessment (for example as required by a laboratory, or external research collaborator) you may append that to this form.		
1	**Full risk assessment completed and appended?**	**Yes**	☐
		No	X
2	**Risks to participants** For example: sector-specific health & safety, emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information		
	Risk to participants: There is risk of confusion regarding the structures in their bodies I am trying to map; there is risk that they may have an adverse emotional reaction to the structures I am trying to bring awareness to; there is risk that their singing could backtrack because this is not a style of learning to which they are suited. Additionally, some of my students are very dependent on me for affirmation. While it is never my intent to participate in this dynamic, it has happened nonetheless with a few of them. There is risk of some emotional adjustment or even harm to them if they are asked to self-evaluate or if they feel that I am displeased.	*How you will mitigate the risk to participants:* *I will make sure they understand that they can withdraw at any point in the process due to either an adverse physical reaction or an emotional one. I will engage in positive dialogue with them to mitigate any risk of misunderstanding. Additionally, I will avoid asking students whom I feel are very dependent on me to participate in the study.*	

3	If research activity may include sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity), give details of the procedures to deal with these issues, including any support/advice (e.g. helpline numbers) to be offered to participants. Note that where applicable, consent procedures should make it clear that if something potentially or actually illegal is discovered in the course of a project, it may need to be disclosed to the proper authorities	
	N/A *(this box should expand as you type)*	
4	**Risks to the investigator** For example: personal health & safety, physical harm, emotional distress, risk of accusation of harm/impropriety, conflict of interest	
	Risk to the investigator: The student could have a bad experience with this and choose not to study with me anymore, which is a financial risk I take by introducing a different type of work into the lesson. There could be some risk of emotional distress to me should this happen as well. Should the student feel that the exercises harm their singing, there is some risk of harm/ impropriety to me. Should any of these things happen, I could suffer reputation damage as a result. *(this box should expand as you type)*	*How you will mitigate the risk to the investigator:* I will make sure they understand that they can leave the study at any point in the process, for any reason, which i hope would make them less likely to leave my studio. I will prepare myself mentally, however, for the possibility of this happening. I will be prepared with research to show that the work I am doing with them is within the bounds of what is considered safe by the voice pedagogy community.
5	**University/institutional risks** For example: adverse publicity, financial loss, data protection	
	Risk to the University: The universe could experience adverse publicity if a student feels harmed by my work and that work had been approved by the university. This could affect the university's finances. Additionally, a leak of my data could be damaging to the university. *(this box should expand as you type)*	*How you will mitigate the risk to the University:* I will make sure to have all consent forms on file and make sure that I have done all in my power to make my students aware of potential risks to their singing.
6	**Environmental risks** For example: accidental spillage of pollutants, damage to local ecosystems	
	N/A	*How you will mitigate the risk to environment:* *(this box should expand as you type)*

	Disclosure and Barring Service			
	If the research activity involves children or vulnerable adults, a Disclosure and Barring Service (DBS) certificate must be obtained before any contact with such participants.	**YES**	**NO**	**N/A**

7	Does your research require you to hold a current DBS Certificate?	☐	X	☐
8	If YES, please give the certificate number. If the certificate number is not available please write "Pending"; in this case any ethical approval will be subject to providing the appropriate certificate number.			

SECTION I: Feedback, Consent and Confidentiality

1	**Feedback** What de-briefing and feedback will be provided to participants, how will this be done and when?
	I intend to provide them with my email address so that they will be able to contact me for further details or results. I will email them a final report upon request.
2	**Informed consent** Describe the arrangements to inform potential participants, before providing consent, of what is involved in participating. Describe the arrangements for participants to provide full consent before data collection begins. If gaining consent in this way is inappropriate, explain how consent will be obtained and recorded in accordance with prevailing data protection legislation.
	I will provide all information in writing a week before I need them to confirm participation. I will provide this both electronically, via email, and physically, with printouts, per their preferences. I will have them sign the forms and keep these on file electronically as pdfs. *(this box should expand as you type)*
3	**Confidentiality / Anonymity** Set out how anonymity of participants and confidentiality will be ensured in any outputs. If anonymity is not being offered, explain why this is the case.
	I will have names and signatures on my consent forms. I intend to use pseudonyms in all of my outputs. *(this box should expand as you type)*

SECTION J: Data Protection and Storage

	Does the research activity involve personal data (as defined by the General Data Protection Regulation 2016 "GDPR" and the Data Protection Act 2018 "DPA")?	**YES**	**NO**
1	***"Personal data"*** *means any information relating to an identified or identifiable natural person ('data subject'). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. Any video or audio recordings of participants is considered to be personal data.*	X	
	If YES, provide a description of the data and explain why this data needs to be collected:		
2	I will have collected audio/visual data from the lesson recordings. I am collecting this so that I can evaluate changes in the singers' voices over time, and also changes in their physicality. I will additionally have their names on consent forms. *(this box should expand as you type)*		
	Does it involve special category data (as defined by the GDPR)?	**YES**	**NO**

3	***"Special category data"*** *means sensitive personal data consisting of information as to the data subjects' –* *(a) racial or ethnic origin,* *(b) political opinions,* *(c) religious beliefs or other beliefs of a similar nature,* *(d) membership of a trade union (within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992),* *(e) physical or mental health or condition,* *(f) sexual life,* *(g) genetics,* *(h) biometric data (as used for ID purposes),*	☐	x
	If YES, provide a description of the special category data and explain why this data needs to be collected:		
4	*(this box should expand as you type)*		

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

	Data Protection		
	Will the research activity involve any of the following activities:	**YES**	**NO**
13	Electronic transfer of data in any form?	☒	☐
14	Sharing of data with others at the University outside of the immediate research team?	☐	X
15	Sharing of data with other organisations?	☐	X
16	Export of data outside the UK or importing of data from outside the UK?	X	☐
17	Use of personal addresses, postcodes, faxes, emails or telephone numbers?	☐	x

18	Publication of data that might allow identification of individuals?	☐	X
19	Use of data management system?	X	☐
20	Data archiving?		X
21	If YES to any question, please provide full details, explaining how this will be conducted in accordance with the GDPR and Data Protection Act (2018) (and any international equivalents, where appropriate):		
	All data will be encrypted and kept in password protected cloud storage on my Google Drive which which will not be shared. Any USB sticks used to store or transfer data will be password protected. All data transfers will be encrypted and password protected. All participants will be given an unique identifier to ensure confidentiality and this list will be kept securely in the password protected folder. The data will be stored until the completion of the project and then deleted. In accordance with the DPA2018, participants will have the right to ask to see what data is held relating to them, and this data will be deleted immediately if the participant requests this, in which case the data will not be used in the project. *(this box should expand as you type)*		
22	List all who will have access to the data generated by the research activity:		
	Principal researcher, Elisabeth Shoup *(this box should expand as you type)*		
23	List who will have control of, and act as custodian(s) for, data generated by the research activity:		
	Principal Researcher, Elisabeth Shoup *(this box should expand as you type)*		
24	Give details of data storage arrangements, including security measures in place to protect the data, where data will be stored, how long for, and in what form. Will data be archived – if so how and if not why not.		
	All data will be encrypted and kept in password protected cloud storage on my Google Drive which will not be shared. Any USB sticks used to store or transfer data will be password protected and will be reformatted at the end of the project in order to destroy the data. The data will be stored until the completion of the project and then deleted. *(this box should expand as you type)*		
25	Please indicate if your data will be stored in the UWTSD Research Data Repository (see https://researchdata.uwtsd.ac.uk/). If so please explain. (*Most relevant to academic staff)*		
	N/A *(this box should expand as you type)*		
26	Confirm that you have read the UWTSD guidance on data management (see https://www.uwtsd.ac.uk/library/research-data-management/)	**YES**	X
27	Confirm that you are aware that you need to keep all data until after your research has completed or the end of your funding	**YES**	X

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Y Drindod Dewi Sant
University of Wales
Trinity Saint David

PG2 / E1 FORM

SECTION K: Declaration

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

1	**Signature of applicant:**		**Date:** 3 September, 2024

For STUDENT Submissions:

2	Director of Studies/ Supervisor:	Laura James	**Date:** **17.10.24**
3	Signature:	Laura James	

For STAFF Submissions:

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

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

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

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

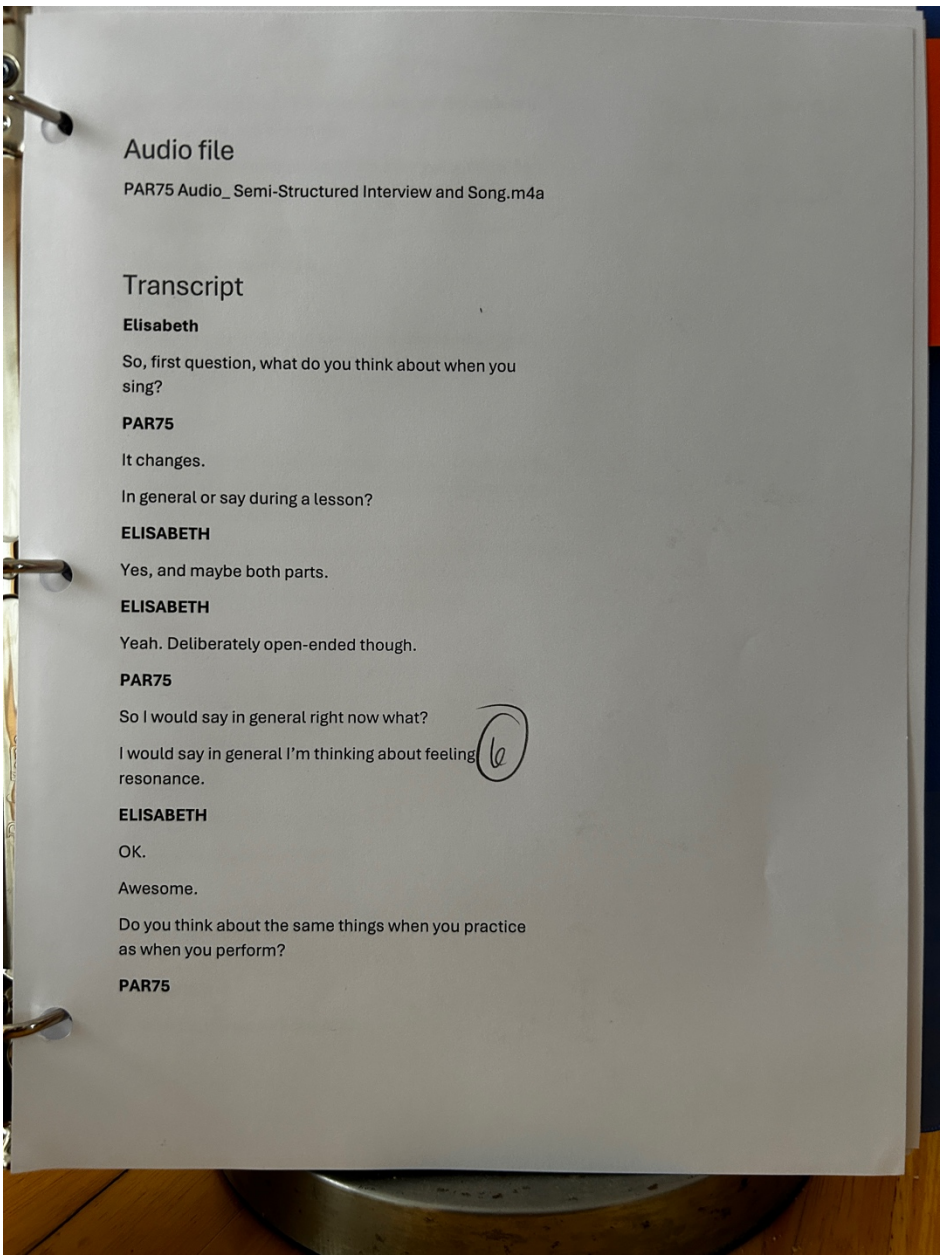
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RESEARCH STAFF ONLY
All communications relating to this application during its processing must be in writing and emailed to pgresearch@uwtsd.ac.uk , with the title 'Ethical Approval' followed by your name.

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

Appendix G
Interview Transcripts with Coding



Audio file

PAR75 Audio_ Semi-Structured Interview and Song.m4a

Transcript

Elisabeth

So, first question, what do you think about when you sing?

PAR75

It changes.

In general or say during a lesson?

ELISABETH

Yes, and maybe both parts.

ELISABETH

Yeah. Deliberately open-ended though.

PAR75

So I would say in general right now what?

I would say in general I'm thinking about feeling resonance.

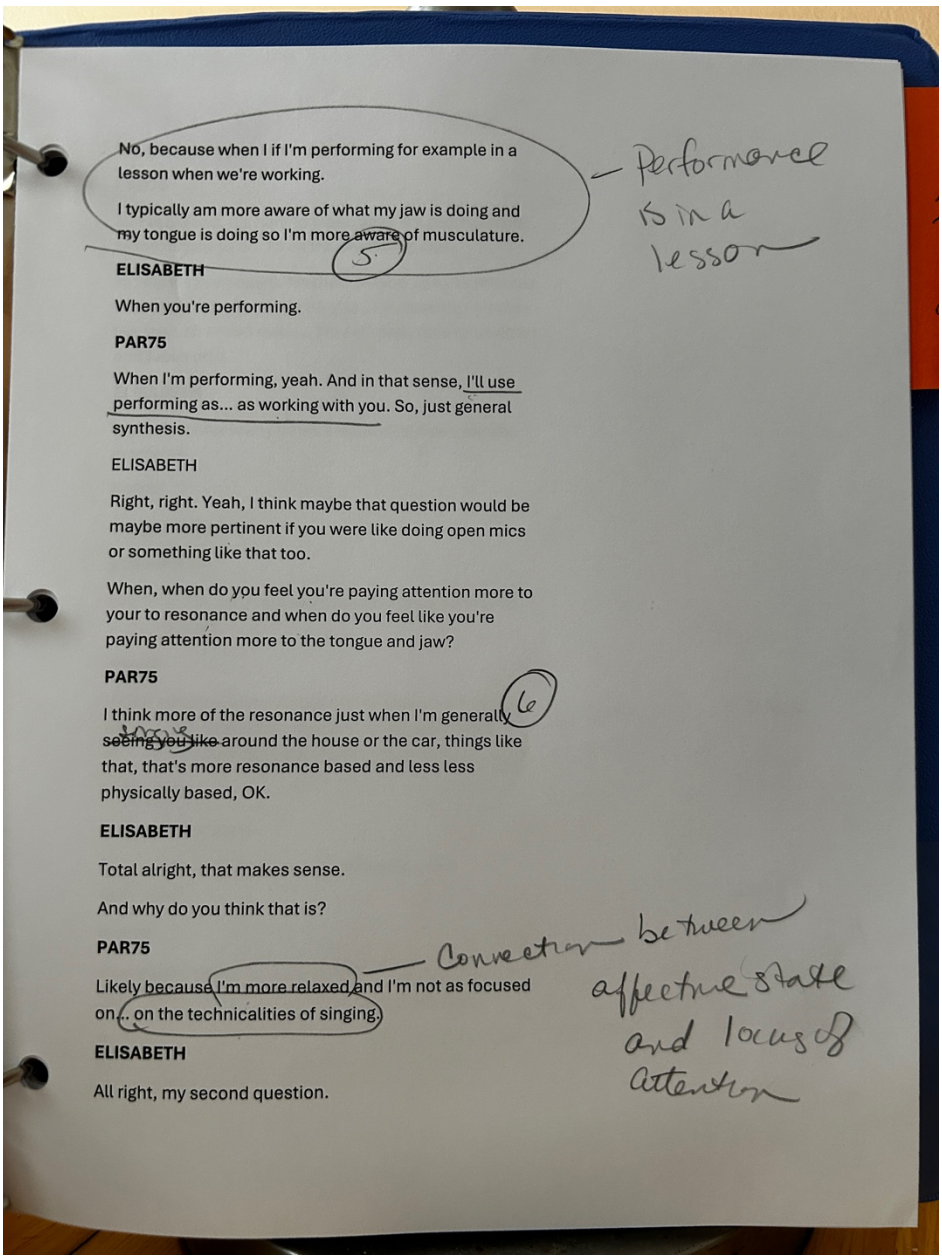
ELISABETH

OK.

Awesome.

Do you think about the same things when you practice as when you perform?

PAR75



No, because when I if I'm performing for example in a lesson when we're working.

I typically am more aware of what my jaw is doing and my tongue is doing so I'm more aware of musculature.

5

Performance is in a lesson

ELISABETH

When you're performing.

PAR75

When I'm performing, yeah. And in that sense, I'll use performing as... as working with you. So, just general synthesis.

ELISABETH

Right, right. Yeah, I think maybe that question would be maybe more pertinent if you were like doing open mics or something like that too.

When, when do you feel you're paying attention more to your to resonance and when do you feel like you're paying attention more to the tongue and jaw?

PAR75

I think more of the resonance just when I'm generally ~~seeing you like~~ around the house or the car, things like that, that's more resonance based and less less physically based, OK.

6

ELISABETH

Total alright, that makes sense.

And why do you think that is?

PAR75

Likely because I'm more relaxed and I'm not as focused on... on the technicalities of singing.

Connection between affective state and locus of attention

ELISABETH

All right, my second question.

What are your practice habits like?

PAR75

Not very good. It's hard to make time. It's getting easier to make time to do. To do the practicing. But.

Mostly it's in snippets. Maybe... maybe 10 to 15 minutes here and there, but I'm driving or...I'm cooking or things like that, so I don't really... I'm not really able to sit down and focus on it.

ELISABETH

Right. And how many times a week would you say you practice?

PAR75

Oh, probably 3 to 4.

ELISABETH

And then, OK, so 3 to 4 and then what would it take to increase that?

PAR75

I think what I've experienced and probably a lot of people experience this, is getting technically more proficient makes it more enjoyable to practice.

wants enactive mastery

ELISABETH

Yeah, I totally agree.

How would you define being technically more proficient?

PAR75

It could be the goals, but hitting the... hitting, the techniques that we work on during our sessions.

And having them ingrained in the body ingrained in our mind and be able to be able to hear the difference.

focus of correct

ELISABETH

What are your feelings about singing when there is not a teacher present or when I'm not there?

PAR75

So it's, you know.

I certainly sing.

Certainly do it.

And you know, I go across the gamut of what I what I do sing...And I say it's...A little...A little easier because...I'm not focused on an outcome...And I think that's the best way I can.

ELISABETH

And so that's really interesting.

You're not focused on an outcome.

So.

What outcomes are you focused on?

PAR75

Well, like doing... doing lessons.

You know, it's about the about the techniques that we're that we're working on, that I'm working toward, whereas I'm not as wrapped up.

You know when I'm.

What I'm just singing to sing, like in the house or whatever, and I feel like... When we're vocalizing I'm, I work a lot harder and... I don't feel like I should have to work that much harder, and maybe in a different way. But I feel like I'm working a lot harder.

ELISABETH

Yeah. So it's like practicing a skill versus just singing.

ELISABETH

What are your feelings about singing when there is not a teacher present or when I'm not there?

PAR75

So it's, you know.

I certainly sing.

Certainly do it.

And you know, I go across the gamut of what I what I do sing...And I say it's...A little...A little easier because...I'm not focused on an outcome...And I think that's the best way I can.

ELISABETH

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So.

What outcomes are you focused on?

PAR75

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You know when I'm.

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ELISABETH

Yeah. So it's like practicing a skill versus just singing.

PAR75

Yeah.

ELISABETH

Do you feel like the skills you're practicing?

Bleed over when you're just singing.

PAR75

Definitely because I'm listening for those now. Yeah. Right. When I'm when I'm singing. For sure.

ELISABETH

How? What are your feelings around performing?

PAR75

I'm pretty naturally confident in front of people like for as I've done a lot of..A lot of presentations in my past and teaching classes and mostly done food and giving lectures to me about so being in front of a for me is not an issue for me and... You know, unless it were a really formal setting, I wouldn't... I don't necessarily worry about, you know, being technically perfect when I'm in front of people, yeah.

ELISABETH

Cool. How much have you sung in formal settings? Actually, out of curiosity?

PAR75

Very, very, just a little karaoke with friends now and then.

ELISABETH

That's awesome. Cool.

Do you feel in control of your voice while you sing?

PAR75

Mostly it's when... but I guess I guess I would say yes...pretty strongly.

But as we discovered during the lessons certainly the wrong way.

I'm trying to control voice rather than... Understanding where the control lay.

come back to this

ELISABETH

Yeah. OK.

Yeah, you kind of grabbing tools that... well we talked about this. OK, cool.

And my follow up question which you kind of answered, but I'm going to ask it anyway is why do you feel this way?

PAR75

Habit. You know, in, in, just in my general... Life and general singing... I've always approached singing as one way. Understanding vocal control in one way and you know, so we have to work beyond.

Audio file

PAR75 Audio Semi-Structured Interview 2 and Song.m4a

Transcript

ELISABETH

And so my first question as the same mostly the same interview as before. What do you think about while you sing?

PAR75

What do you think about when I sing? In the last few sessions, it's mostly about a mix between tongue placement and jaw placement.

ELISABETH

OK. Could you elaborate on that?

PAR75

Yeah, keeping that tongue forward and then and then keeping the... the jaw down as far as I can and trying to make the jaw as lazy as possible.

ELISABETH

Awesome. Cool. The next question is- I know you don't perform a whole lot, but imagine maybe just singing a whole song. Do you think about the same things when you practice as when you perform? Or we could replace perform with a sing-through.

PAR75

Yeah. Yeah, yeah. I'm going to qualify that in in saying that as when when I sing through, I'm gonna say maybe,

Specific Strategy

I worded it better

maybe just as I'm... like when I'm just kind of playing around at home and not like focused on practicing... And I don't. I really don't worry about... the technical parts are singing when I'm... when I'm doing that one. With the exception of maybe of the lower notes to make sure that I'm not that I'm keeping the sound forward enough, not not swallowing the notes.

External

ELISABETH

OK. So. So it's like so, so. So you would say mostly you're just thinking about... thinking about singing? But would you say you're thinking about the music in that circumstance? You gonna think about sound?

PAR75

But also the sound bit more more the resonance.

6

ELISABETH

OK, cool. All right. So maybe you were thinking about more the effects of what you're doing versus the causes? Does that OK?

PAR75

Yeah. Yeah, very much. Yeah, yeah.

ELISABETH

And why do you think this is?

PAR75

Probably because... I mean, well, in that case, I'm not seeing from the audience, which is, you know, the opposite of what you're kind of asking the in the antecedent question. But I'm not as I'm not as worried about... I guess making a mistake when I'm just singing.

Very worried about making mistakes when I am there

ELISABETH

OK, makes sense. Makes sense. Actually, I was going to ask a follow up, but I think that's great. What are your practice habits like?

PAR75

Uh, it's actually gotten better. Especially because of the changes that have happened over the past few weeks. I'm I'm doing it more frequently.

I wouldn't be able to pin down exactly 'cause I'm... I don't sit down and block off time to do it, but I get I get some kind of work in every day, whether it's with a consonant work or whether it's just... trying to focus on making the right kind of sounds like that, but even for a few minutes. There's something going on every day, yeah.

ELISABETH

Awesome. And what do? What do you feel like has caused this change?

PAR75

I think it's... In the last month or so the the changes that we've managed to to enact. Makes...makes it more satisfying to sing. Yeah. Excellent.

ELISABETH

OK. Alright, cool. So you're feeling, so it sounds like like you feel if I, if I'm understanding you correctly, it sounds like you're saying that you... it's it's more satisfying, meaning that you feel more like you can...Kind of be successful at it.

PAR75

Yeah, and. It's, you know, it's is a kind of confidence. Not it's not. It's not overall confidence because I did, wasn't really.... So confident about my singing before, even though I wasn't doing it right. But I'm I'm more

confident in the technique overall technique that I'm using.

ELISABETH

OK. And what what has changed to make you more confident in the overall technique that you're using?

PAR75

Goal oriented

Because I know the sound I'm making is closer to the end goal. 1

ELISABETH

OK, excellent. I like it. Next, so this is... you kind of started touching on this, but I'm still gonna ask it. What are your feelings about singing when there is not a teacher present?

PAR75

Back and forth

Yeah. So. It's, you know, you followed me for a few years now. So you understand that I get-I'm really... Hyper aware of having wrong intonation when I'm in our lessons. And I'm not When I just sing by myself. And it helps me to think through the phrases better by myself, so I'm not as worried about the small things.

ELISABETH

So it sounds like you're saying that you're more worried, like if I'm there, if about the intonation, then you are by yourself.

toxic self-focu

PAR75

Yeah.

ELISABETH

OK. All right. And why is that?

PAR75

I'm not 100% sure because.

Speaker

OK.

ELISABETH

I'm curious like that's not even one of my list of questions. I'm just curious.

PAR75

Yeah I don't know.

ELISABETH

Yeah. Yeah, it's, it's interesting, you know, to think about. My follow up question is why do you why do you have these?

PAR75

Why do I have these feelings? I suppose I am preoccupied with getting it right in the lessons, you know.

ELISABETH

Yeah. OK.

ELISABETH

And again, more so because I'm there.

PAR75

Even though I empirically, I know that it's an issue, I mean. But there's a part of me that that that doesn't want to make those mistakes, even though it's not a big deal 'cause I I know I'm on the right path and I know that I'm more accurate than not.

ELISABETH

Especially lately, like Oh my gosh, such a change. We flipped this question around but I'm really interested in that. So, you're so you would say that you're more

comfortable singing when there's not a teacher present versus when there is.

PAR75

I think so, yeah.

ELISABETH

OK. That's great. All right, So what feelings do you have around performing?

PAR75

Yeah, I mean, I. I would love to. I was hoping... we had our staff party last night and I... I really wanted to do a karaoke aspect, but we have one guy who is kind of an amateur singer. And we know he would dominate the entire night if we had that, which we kind of avoided. So, I didn't do it because he's like a, a center of attention guy and he has to be the center of attention no matter what. And I know even if other people were singing, he would make it about him. We couldn't do it. So, I was kind of looking forward to doing it. 'Cause I do want to. It's just finding a venue for it.

ELISABETH

Yeah, yeah, I would love that for you, because you've worked so hard at this and it's come so far.

PAR75

And it's going to be in the part. Being in front of a crowd doesn't bother me. I think we talked about this, that I used to give... I used to give presentations all the time. Being in front of the audience is not an issue.

ELISABETH

Yeah, that's awesome. I would be curious to see... like I know for myself... That I'm totally comfortable singing in front of people. But speaking sometimes I'm like, I don't

like it. Not to plant that, but I would be curious to see if it stayed that way when you end up singing.

PAR75

Interesting, yeah.

ELISABETH

I'd be curious if you had. So maybe I'll rephrase my question then. If you had a performance tomorrow. Of a song that of "Come Fly with Me," How... what feelings does that bring up on you?

PAR75

I think. I mean. I think I wouldn't really have a lot of worries about it because well, I don't think it would be like a like my first times doing it or once I wouldn't view it as a really formal performance. Just in a very informal setting. Even though I was singing it, whether it be an accompanist or the backing track or whatever. But I think that it probably would be quite easy for me to do.

ELISABETH

Yeah, that's awesome. I think so too. That's really cool. And why do you and again you kind of answered this, but I'm still gonna ask it. Why do you feel like it would be easy?

PAR75

Part of it is, you know. Comfortability in front of crowds.

ELISABETH

Yeah.

PAR75

That's a that's a lot of it, but, but also this kind of song, which is sort of right within right within the range also is...yeah, it's an easy one. Not to not to toss off, but you know. It's a song that is very forgiving when you sing it.

ELISABETH

I agree. Yeah. Also, you sing it very well, so yeah. Do you feel in control of your voice while you sing?

PAR75

Say 80%.

Speaker

OK.

ELISABETH

Why do you feel this way?

PAR75

Uh. I guess 2 answers on that one 'cause I don't have all the technical aspects of controlling my voice down. But also because I over control it. And can't and can't get that extra... I'll say 10% because I don't have technical aspects and 10% because I over-control and can't get to the higher registers.

Toxic Control

ELISABETH

Yeah, but they're coming.

PAR75

I think we need to go back to “Get here.”

ELISABETH

I think so. Yeah. Yeah, I think that's that one's coming back. Agree. You touched on this last my last question, but I'm again, I'm still gonna ask it just to see what comes up. Have your feelings of agency or control over your singing changed during this study?

PAR75

Yeah, for sure.

ELISABETH

Yeah. OK. Can you elaborate on that more?

PAR75

I mean, we have. Have made progress I'm not sure as part of the study or or not. It's probably made progress in the upper register which... May or may not have come anyway. But certainly I mean the consonant work. Don't know if that was part of the study, but that's... that's helpful.

ELISABETH

It was, yes.

PAR75

So that's certainly... that's certainly been helpful. And I like that because. It really certainly made me aware of... Not not beating up my consonants, you know, with my tongue or being a little less forceful on them and just using the conservation of energy. In the... In the in the top, because it does so much work, I hadn't really thought about this in this direction before. But you know, it is a lot of it is very, very analogous to dance in that that you ~~can serve your~~ conserve energy where you can. To achieve the goal, and especially for me.

At this stage I'm still spending a lot of energy in the tongue that doesn't need to be there.

ELISABETH

OK. Yeah. But it's getting so it sounds like what you're learning... You're so you'll tell me if you agree or disagree with this statement you're learning what what to use when and where and how much?

Yeah, yeah. Or or there's an idea in Alexander technique of correct effort. Does that sounds like? I was thought of that as you were speaking.

PAR75

Yep, that's very, very important. Yeah.

Speaker

OK.

ELISABETH

Yeah, alright, cool. Let's see. Yeah, I and I, I guess I I also just want was curious 'cause you talked a bit about feeling more in control of your tongue and jaw, right? You've been thinking about that, which is exactly what we were working on studying. Can. Can you speak a little bit more about how you feel like that has changed your singing?

PAR75

Well, I mean, it's certainly opening up opening up the resonance and I'm not sure how much more in control I am as a as opposed to how much more aware I am.

Control vs. aware

ELISABETH

Hey, that's a really impressing distinction. That's really interesting, yeah. Can you elaborate on that distinction?

PAR75

To understand what I'm when I'm singing. To understand where my jaw is, I know where it's supposed to be, but you know, especially, you know, we've gone through "Come Fly with Me" long enough that you know.. I have the music pretty well, but I can really focus on the other aspects of what's going on... On, you know, stepping outside of the song. To watch what's happening and to understand. Where the jaw? When when my jaw is not where it's supposed to be. Like when it's too close. It's, you know, it's. Yeah, I guess so, yeah.

5

ELISABETH

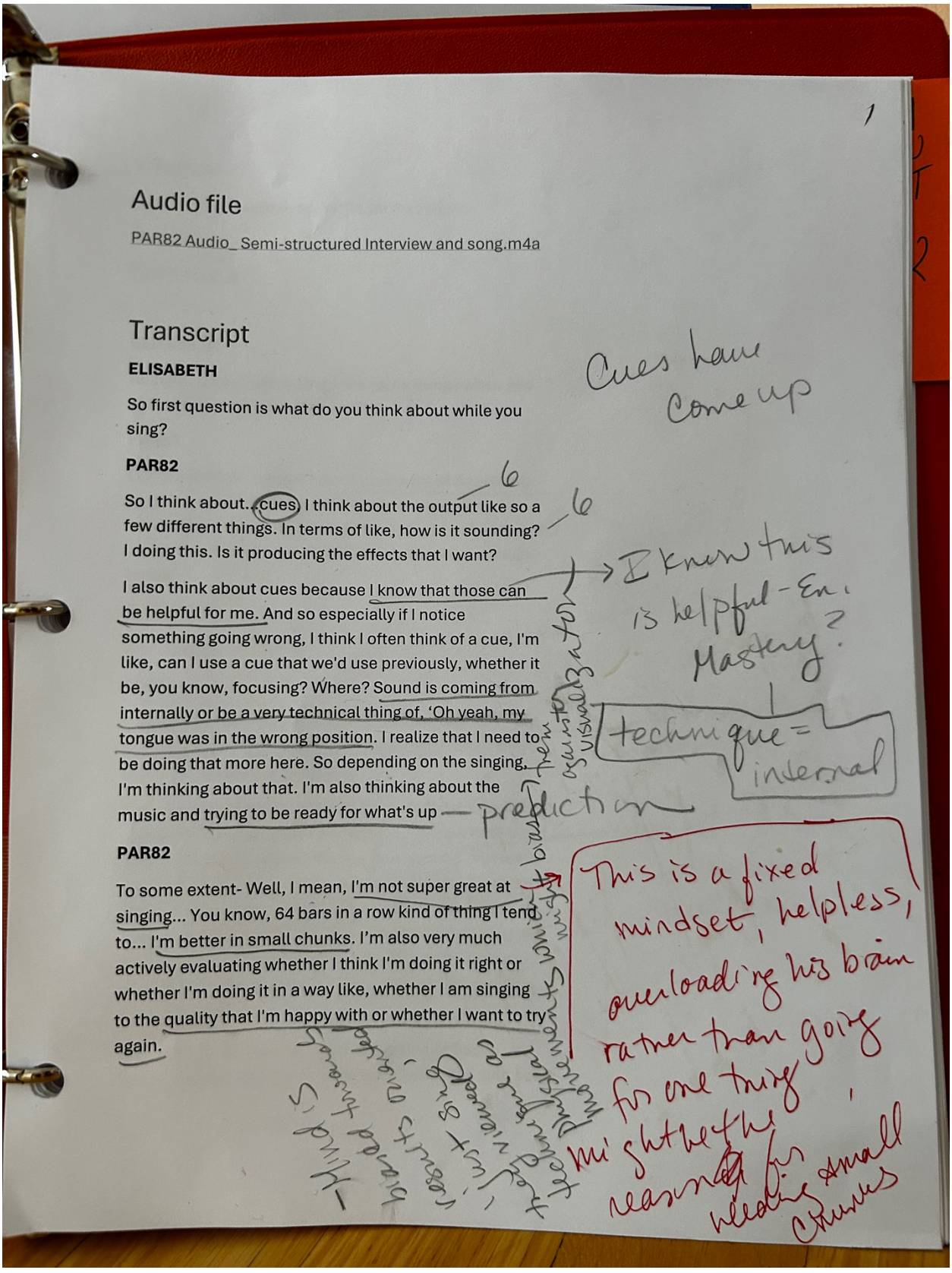
So if I if I if I said that it sounds like you're developing... a better feeling for like what is correct versus the kind of, it's called a locus of correctness, and whether you're where you are in relation to that does that does that resonate with you?

PAR75

Let's see. I think so, yeah.

ELISABETH

Yeah. Cool. All right. That's my. That's the survey, then the very last thing I'd like to do is just have you sing a little bit of that of our song.



Audio file

PAR82 Audio_ Semi-structured Interview and song.m4a

Transcript

ELISABETH

So first question is what do you think about while you sing?

PAR82

So I think about... cues. I think about the output like so a few different things. In terms of like, how is it sounding? I doing this. Is it producing the effects that I want?

I also think about cues because I know that those can be helpful for me. And so especially if I notice something going wrong, I think I often think of a cue, I'm like, can I use a cue that we'd use previously, whether it be, you know, focusing? Where? Sound is coming from internally or be a very technical thing of, 'Oh yeah, my tongue was in the wrong position. I realize that I need to be doing that more here. So depending on the singing, I'm thinking about that. I'm also thinking about the music and trying to be ready for what's up

PAR82

To some extent- Well, I mean, I'm not super great at singing... You know, 64 bars in a row kind of thing I tend to... I'm better in small chunks. I'm also very much actively evaluating whether I think I'm doing it right or whether I'm doing it in a way like, whether I am singing to the quality that I'm happy with or whether I want to try again.

ELISABETH

And that's all happening. While you're singing.

he is overloading his brain

PAR82

I think so, yeah.

ELISABETH

All right. Do you think about the same things when you practice as when you perform?

PAR82

Good question. I mean. I don't have a lot of dichotomy here. I guess not a huge difference for me here so. I think that.... the closest thing I have to performance is if I were like doing karaoke, which I've only done a couple times.

ELISABETH

That counts.

I should have followed up

PAR82

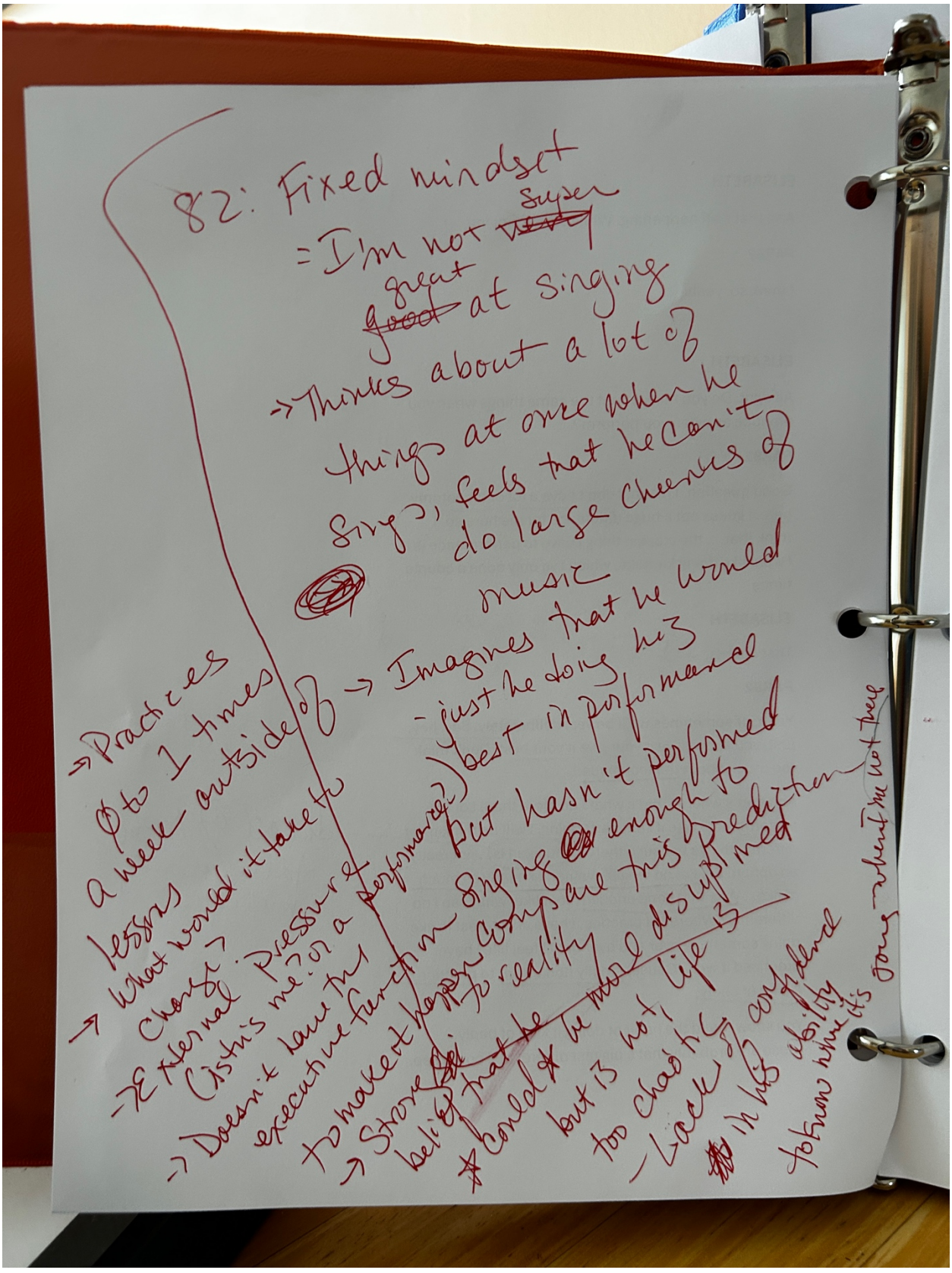
Yeah, or sometimes we'll be very deliberately. Say, hey, just, you know, give it your give it your best. Don't think too much about the technique.

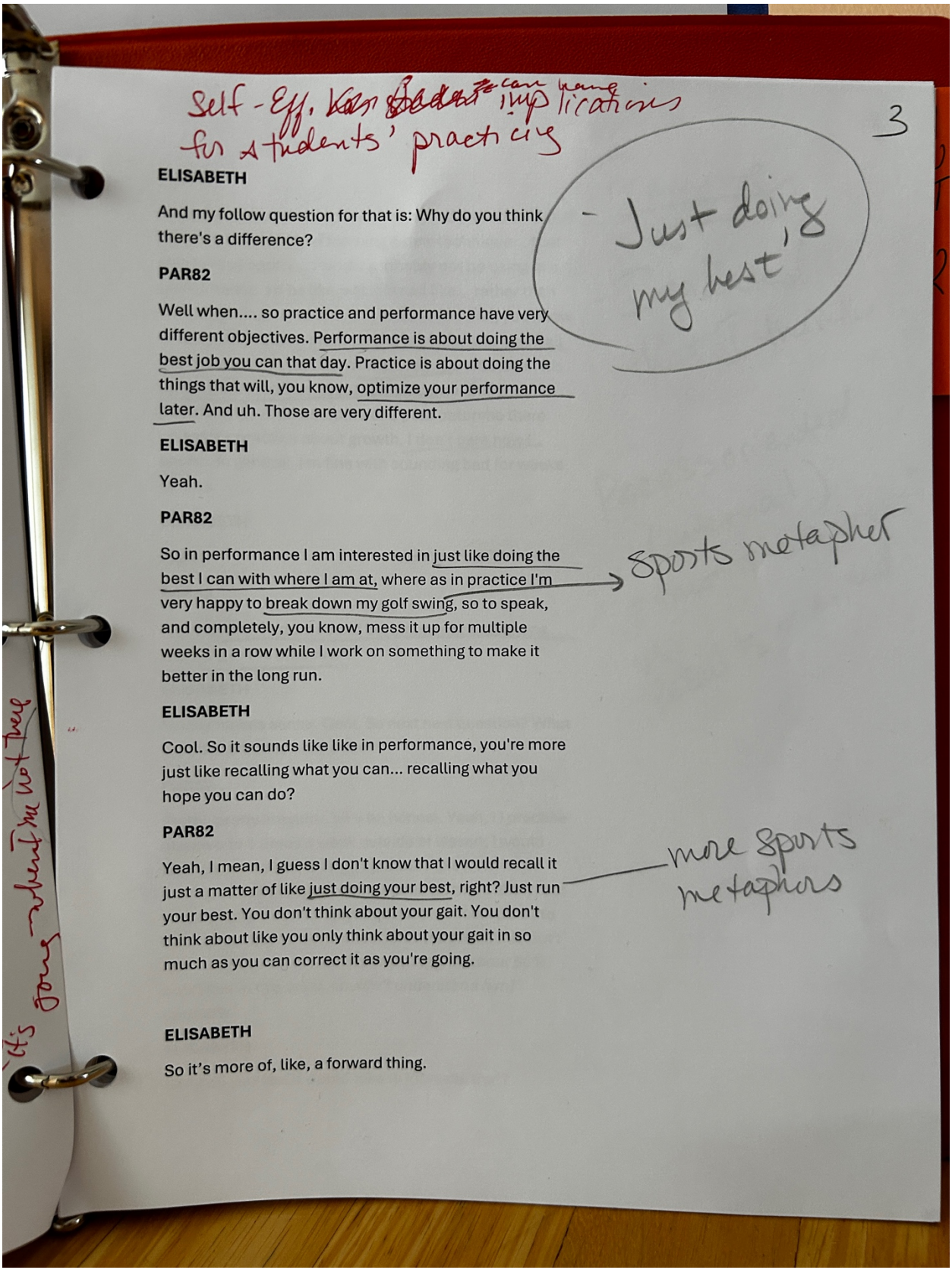
I will say this in lessons

And that's where I that's what I do more than. Lot of performance. Like if I am performing, I will be thinking of different things because there... mulligan is... not really an option. So, I'm no longer evaluating nearly as much of like... Was that good enough? Just like, what can I do differently? Whereas I practice, I have an interest in like doing something over and over until I feel like I have practiced it well. 'Cause, I really don't want to practice it kind of badly.

did all of them talk about mulligans??

You know, build the habit of doing it kind of badly. Those are probably that's biggest difference I could see.


82: Fixed mindset
= I'm not super great at singing
→ Thinks about a lot of things at once when he sings, feels that he can't do large theories of music
→ Imagines that he wanted - just he doing his best in performance
But hasn't performed enough to make it happen
→ Strong belief that he could be more disciplined
* In reality this prediction is not true
- Lack of confidence in his ability
→ Practices 0 to 1 times a week outside lessons
→ What would it take to change?
- External Pressure (Is this me? or a performance?)
→ Doesn't have the executive function
→ Compare
* To reality
but is not life
too chaotic
* In his ability
Johnny what it's going right me not there



ELISABETH

And my follow question for that is: Why do you think there's a difference?

PAR82

Well when.... so practice and performance have very different objectives. Performance is about doing the best job you can that day. Practice is about doing the things that will, you know, optimize your performance later. And uh. Those are very different.

ELISABETH

Yeah.

PAR82

So in performance I am interested in just like doing the best I can with where I am at, where as in practice I'm very happy to break down my golf swing, so to speak, and completely, you know, mess it up for multiple weeks in a row while I work on something to make it better in the long run.

ELISABETH

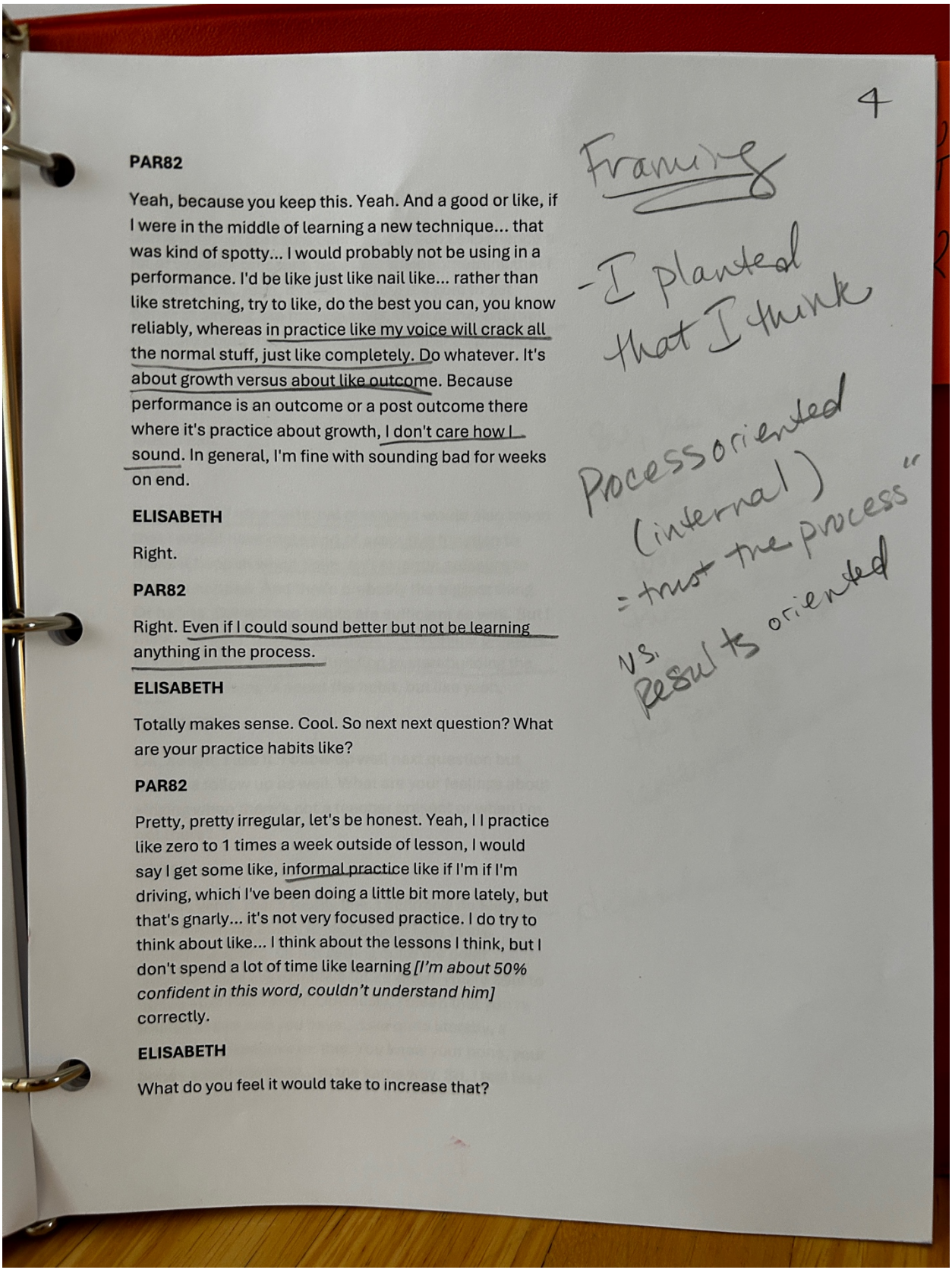
Cool. So it sounds like like in performance, you're more just like recalling what you can... recalling what you hope you can do?

PAR82

Yeah, I mean, I guess I don't know that I would recall it just a matter of like just doing your best, right? Just run your best. You don't think about your gait. You don't think about like you only think about your gait in so much as you can correct it as you're going.

ELISABETH

So it's more of, like, a forward thing.



4

Framing

- I planted that I think

Process oriented (internal) = trust the process

vs. Results oriented

PAR82

Yeah, because you keep this. Yeah. And a good or like, if I were in the middle of learning a new technique... that was kind of spotty... I would probably not be using in a performance. I'd be like just like nail like... rather than like stretching, try to like, do the best you can, you know reliably, whereas in practice like my voice will crack all the normal stuff, just like completely. Do whatever. It's about growth versus about like outcome. Because performance is an outcome or a post outcome there where it's practice about growth, I don't care how I sound. In general, I'm fine with sounding bad for weeks on end.

ELISABETH

Right.

PAR82

Right. Even if I could sound better but not be learning anything in the process.

ELISABETH

Totally makes sense. Cool. So next next question? What are your practice habits like?

PAR82

Pretty, pretty irregular, let's be honest. Yeah, I I practice like zero to 1 times a week outside of lesson, I would say I get some like, informal practice like if I'm if I'm driving, which I've been doing a little bit more lately, but that's gnarly... it's not very focused practice. I do try to think about like... I think about the lessons I think, but I don't spend a lot of time like learning *[I'm about 50% confident in this word, couldn't understand him]* correctly.

ELISABETH

What do you feel it would take to increase that?

5

PAR82

Good Question.

Some external pressure could help. I don't experience a lot of external pressure. So if that were something that I wanted to do, yeah, if I were making it a goal to get better at singing like more quickly, then some external pressure could make that happen quicker if I practice more.

ELISABETH

Sure. Yeah.

So, he believes that practice works but this isn't strong enough to overrule the pull of his external pressures

PAR82

Reduction of other external pressures would also mean that I would have more sort of executive function to make it happen when there isn't external pressure to make it happen. And that's probably the biggest thing. Or habits. Sometimes habits are sufficient as well. But I think... to build a habit, you need to that initial pressure or that control executive function to start building the habit. Sustaining is about the habit, but like yeah.

ELISABETH

OK, alright. I like it. Follow up well next question but kind of a follow up as well. What are your feelings about singing when there's not a teacher present or when I'm not there?

PAR82

dependency

I mean, yeah. That's totally fine. I definitely do feel less confident in my ability to recognize if I am doing something wrong. Or not getting quite the point because there are definitely times where you're able to notice stuff that I don't. Obviously, I mean that you're trained in this and you have... Like quite literally, a different perspective on this. You know your bone, your bones aren't vibrating... in the same way. So. I feel less

confident that it in some things definitely, especially when it's like a new ~~queue~~ cue we've worked on or a new adaptation I feel way less confident there. I'm also probably more self-conscious without a teacher I would say. It's very clear to me what I'm meant to be doing when someone else is telling me what to do, versus on your on your own. It's like, oh, well, I'm just wailing.

PAR82

So I think... I think.... those are probably the main differences.

ELISABETH

OK, awesome. What would need to happen for this to change?

PAR82

I mean, I don't know that it needs to change but for to change... I mean...

ELISABETH

Or I would say maybe I'll reword that for that for you to feel... More... More like you were able to integrate a new cue or like you... you knew like you weren't kind of just wailing. Like you said.

PAR82

Yeah, I think you're using like one thing I could try that would probably improve it would be getting a lot more diligent about recording and listening back because that is something where if I am doing that more consistently, I may have an easier time identifying the same things that you identify because it at least largely gets rid of the difference in my... my bones are vibrating in yours are not. You're obviously still more trained to like... listen to the sound, and to recognize the maybe the differences we are trying to create. Because I can

contrast to PAR75 who is more self conscious with teacher

= "just doing my best" but it's negative and makes him self-conscious which is negative self awareness

Why? I wish I had followed up on this

you can have self-efficacy and not do it

Self efficacy ≠ motivation

5

PAR82

Good Question.

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ELISABETH

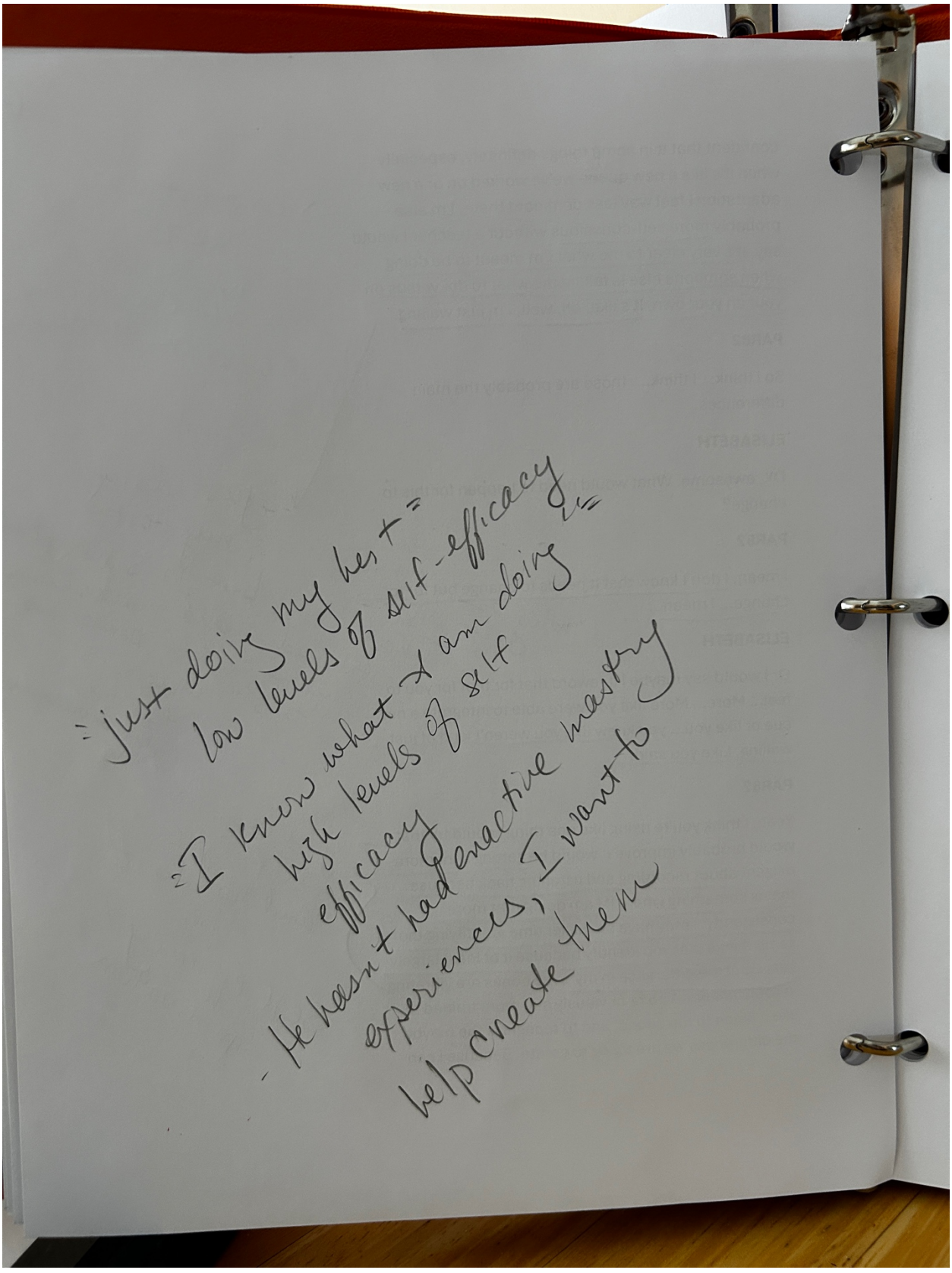
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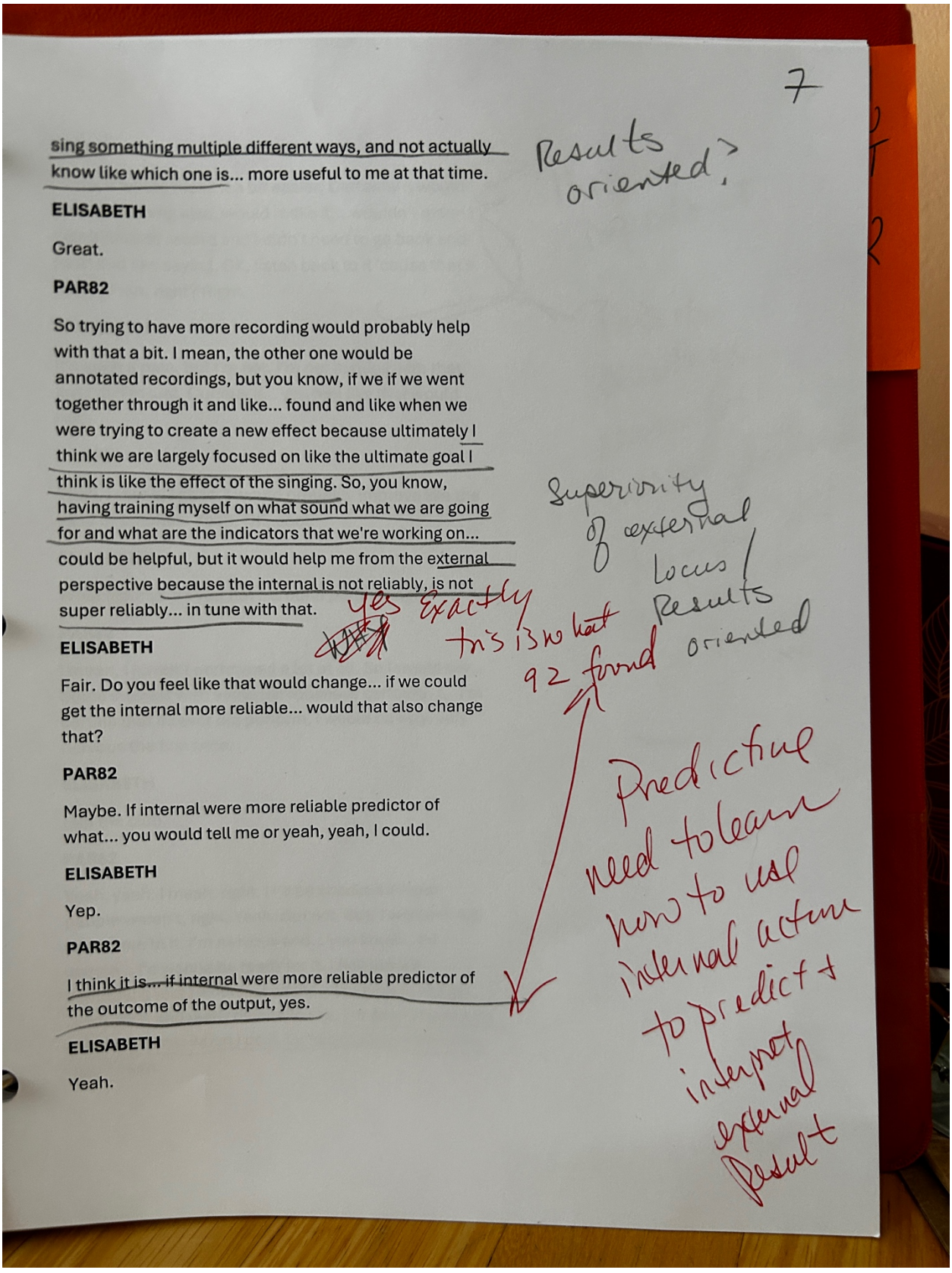
PAR82

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So, he believes that practice works but this isn't strong enough to override the pull of his external pressures

dependency


"just doing my best" =
low levels of self-efficacy
"I know what I am doing" =
high levels of self
efficacy
- He hasn't had enactive mastry
experiences, I want to
help create them



7

sing something multiple different ways, and not actually know like which one is... more useful to me at that time.

Results oriented?

ELISABETH

Great.

PAR82

So trying to have more recording would probably help with that a bit. I mean, the other one would be annotated recordings, but you know, if we if we went together through it and like... found and like when we were trying to create a new effect because ultimately I think we are largely focused on like the ultimate goal I think is like the effect of the singing. So, you know, having training myself on what sound what we are going for and what are the indicators that we're working on... could be helpful, but it would help me from the external perspective because the internal is not reliably, is not super reliably... in tune with that.

Superiority of external Locus / Results oriented

yes Exactly this is how I found 92

ELISABETH

Fair. Do you feel like that would change... if we could get the internal more reliable... would that also change that?

PAR82

Maybe. If internal were more reliable predictor of what... you would tell me or yeah, yeah, I could.

ELISABETH

Yep.

PAR82

I think it is... if internal were more reliable predictor of the outcome of the output, yes.

Predictive need to learn how to use internal actions to predict + interpret external Result

ELISABETH

Yeah.

PAR82

I think it would make it a bit easier. Certainly it would just... if nothing else, would make it... wouldn't mean I didn't have to record and I didn't need to go back and forth and like saying, OK, listen back to it 'cause that's that's. Pain, right? Right.

This is important

This is another reason for internal feedback training but we have to get there

ELISABETH

It's such a pain, but I'm not. I'm not arguing with that, but I'm. I'm just. Curious if... you feel like that would help.

PAR82

Yeah, I mean. I go to. I would probably improve like the ease of practice. Yeah, OK, cool.

ELISABETH

What feelings do you have around performing?

PAR82

I mean, I haven't performed a lot at all. So I would say... Some interest with some nervousness certainly. I... I'm certain that if I ever did perform, I would be very, very nervous the first time.

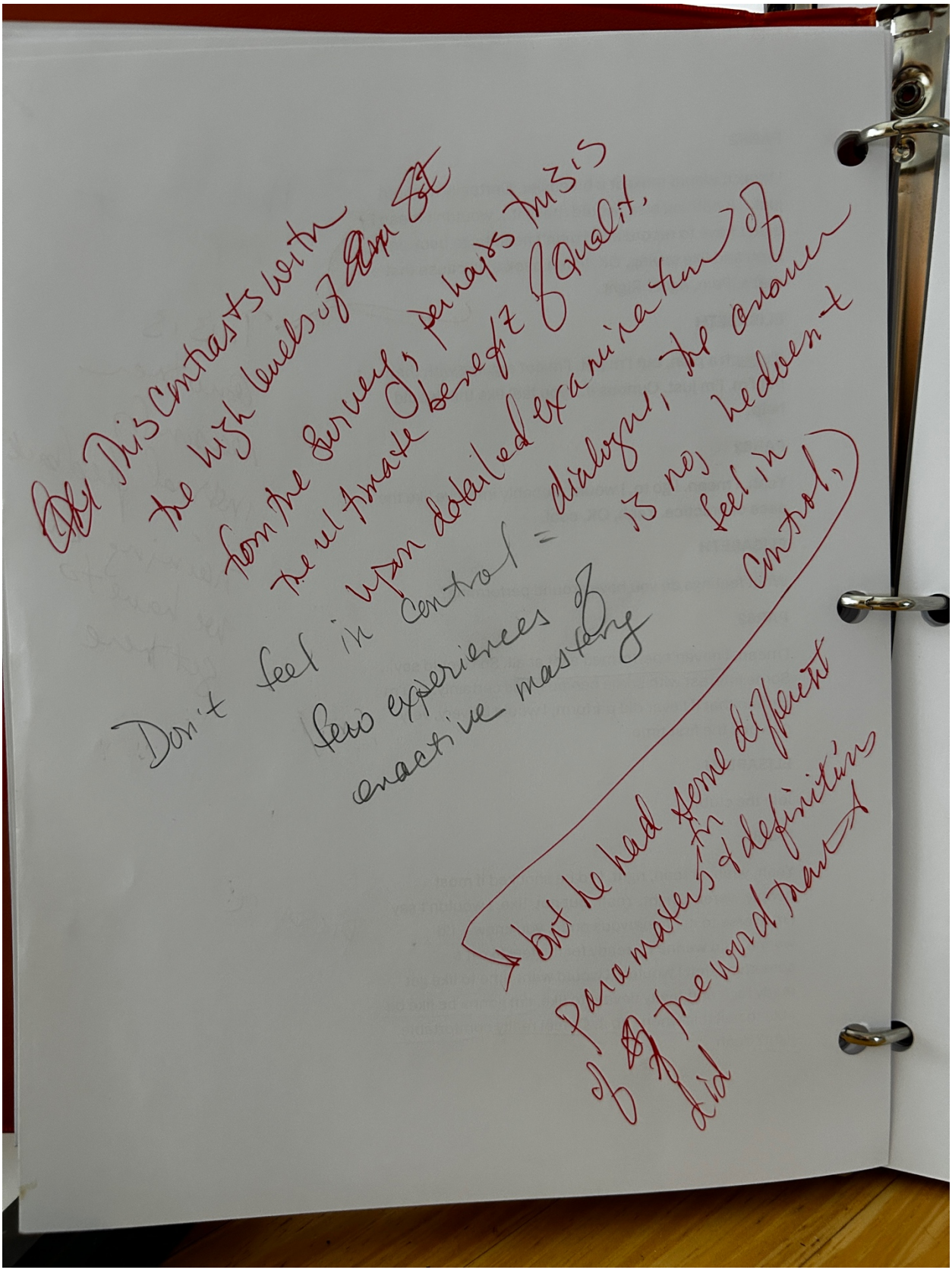
ELISABETH

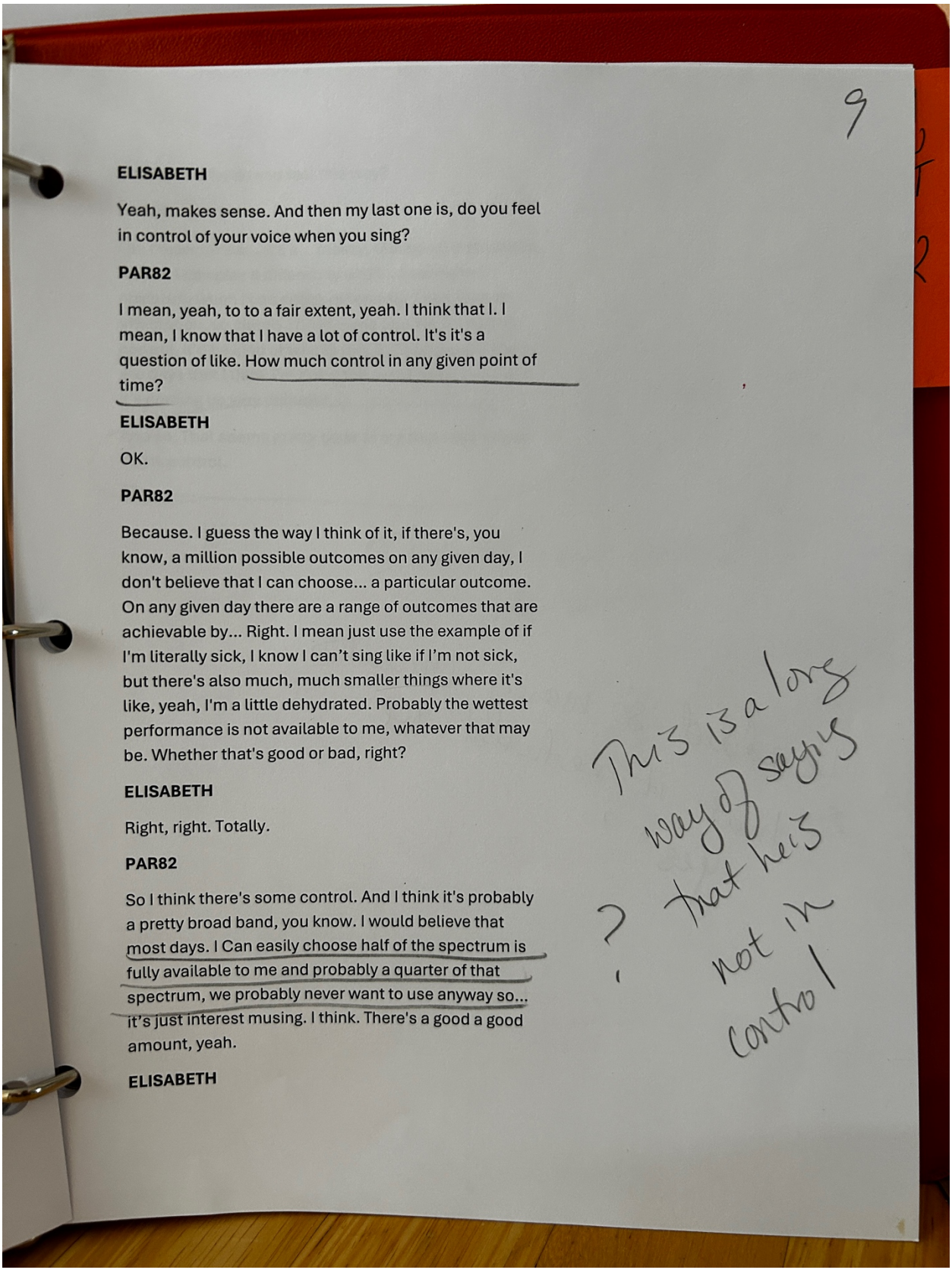
Join the club.

PAR82

Yeah, yeah. I mean, right. I I'd be shocked if most people weren't, right. Yeah. But not, like, I wouldn't say I'm averse to it. I'm nervous and... you know... I'd wanna... I'd wanna be ready for it. I feel like it's something that I would... I would want time to like get ready for it and really devote to like, I'm gonna be like be able to nail this when I do it. Or feel really comfortable, right? Yeah.

pressure


Dis contrasts with
the high levels of
from the survey, perhaps this is
the ultimate benefit & quality,
when detailed examination of
dialogue, the answer
is no, he doesn't
feel in
control,
Don't feel in control =
less experiences of
enactive mastery
but he had some different
paramaters in
of definitions
the word learn
did



9

ELISABETH

Yeah, makes sense. And then my last one is, do you feel in control of your voice when you sing?

PAR82

I mean, yeah, to to a fair extent, yeah. I think that I. I mean, I know that I have a lot of control. It's it's a question of like. How much control in any given point of time?

ELISABETH

OK.

PAR82

Because. I guess the way I think of it, if there's, you know, a million possible outcomes on any given day, I don't believe that I can choose... a particular outcome. On any given day there are a range of outcomes that are achievable by... Right. I mean just use the example of if I'm literally sick, I know I can't sing like if I'm not sick, but there's also much, much smaller things where it's like, yeah, I'm a little dehydrated. Probably the wettest performance is not available to me, whatever that may be. Whether that's good or bad, right?

ELISABETH

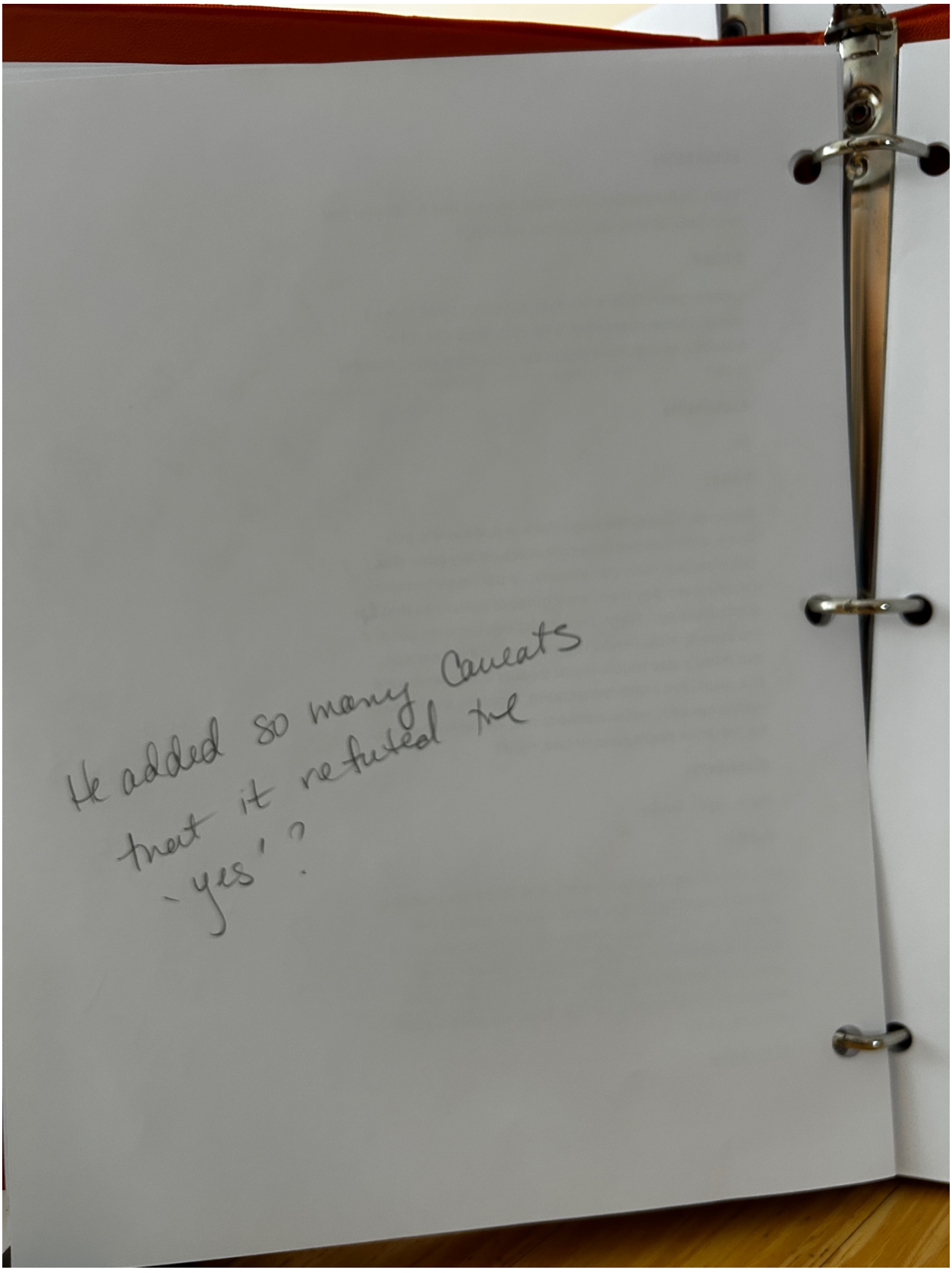
Right, right. Totally.

PAR82

So I think there's some control. And I think it's probably a pretty broad band, you know. I would believe that most days. I Can easily choose half of the spectrum is fully available to me and probably a quarter of that spectrum, we probably never want to use anyway so... it's just interest musing. I think. There's a good a good amount, yeah.

ELISABETH

This is a long way of saying that he's not in control


He added so many caveats
that it refuted the
-yes'?

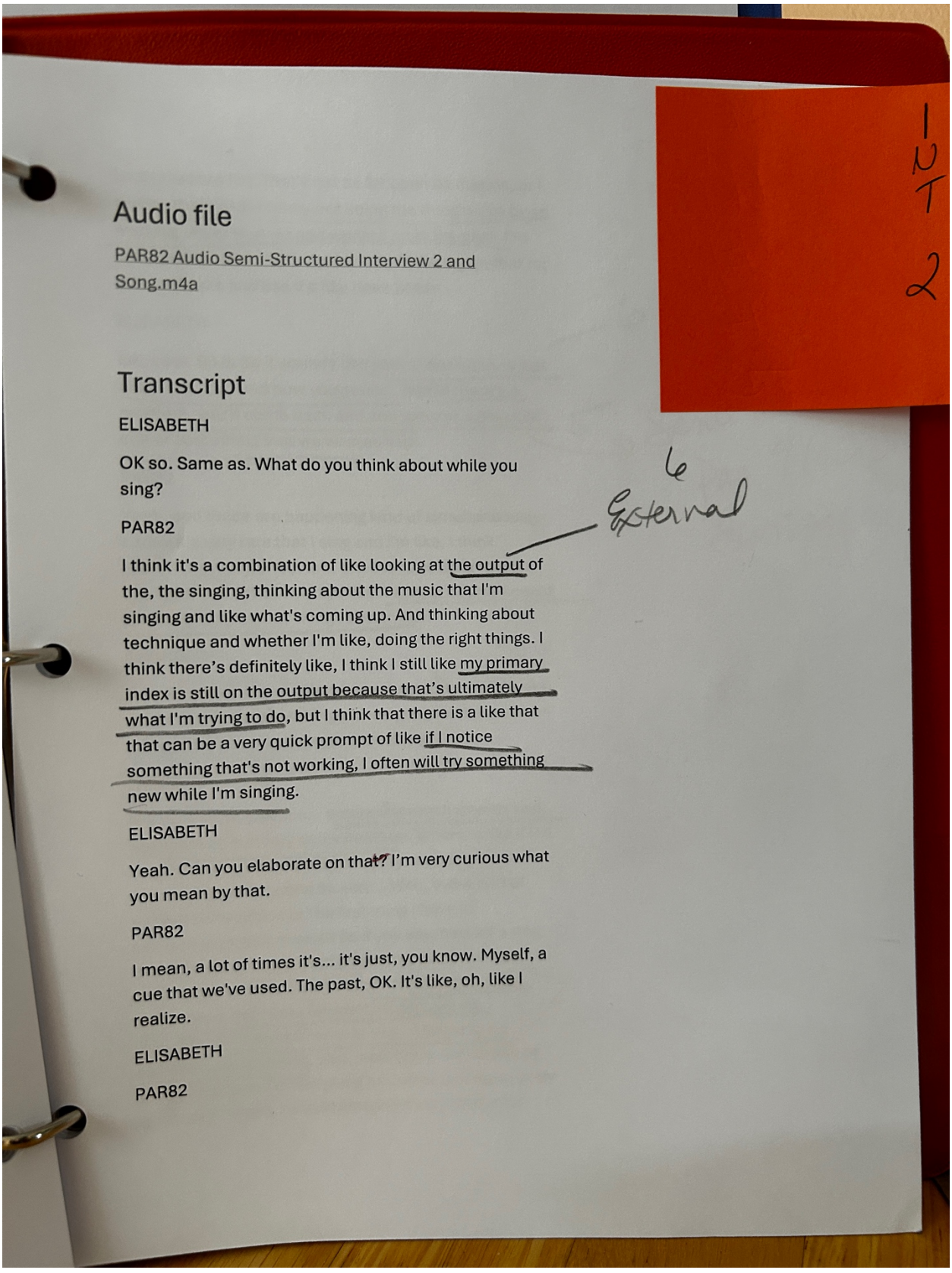
And then. Why do you feel this way?

PAR82

Oh, I mean, it's a... it's a... messy, biological instrument. And so I can play it differently and I... know when obviously when I can speak differently, I can have an affectation, so clearly I have some control, if I had no control, it'd be kind of wild to me. But I also know there are days that I think I'm doing the exact same thing and it's coming up very different.

And so. That seems pretty clear to me that I don't have 100% control.

I should have worded Q better?



INT 2

Audio file

PAR82 Audio Semi-Structured Interview 2 and Song.m4a

Transcript

ELISABETH

OK so. Same as. What do you think about while you sing?

6 External

PAR82

I think it's a combination of like looking at the output of the, the singing, thinking about the music that I'm singing and like what's coming up. And thinking about technique and whether I'm like, doing the right things. I think there's definitely like, I think I still like my primary index is still on the output because that's ultimately what I'm trying to do, but I think that there is a like that that can be a very quick prompt of like if I notice something that's not working, I often will try something new while I'm singing.

ELISABETH

Yeah. Can you elaborate on that? I'm very curious what you mean by that.

PAR82

I mean, a lot of times it's... it's just, you know. Myself, a cue that we've used. The past, OK. It's like, oh, like I realize.

ELISABETH

PAR82

Like I realized I'm. That's not as far open as doable, or I realize that I'm definitely *not* doing the thing we've been working on, or that we had worked on in the past. I'm like, oh, like let's... let's try. Let's try focusing on that for this next take and see if it like does better.

ELISABETH

OK, cool. So it. So it sounds like your initial focus is just like the output and how you sound. Then if there's a problem, you'll come back and and you use a physical cue or something that we worked with.

PAR82

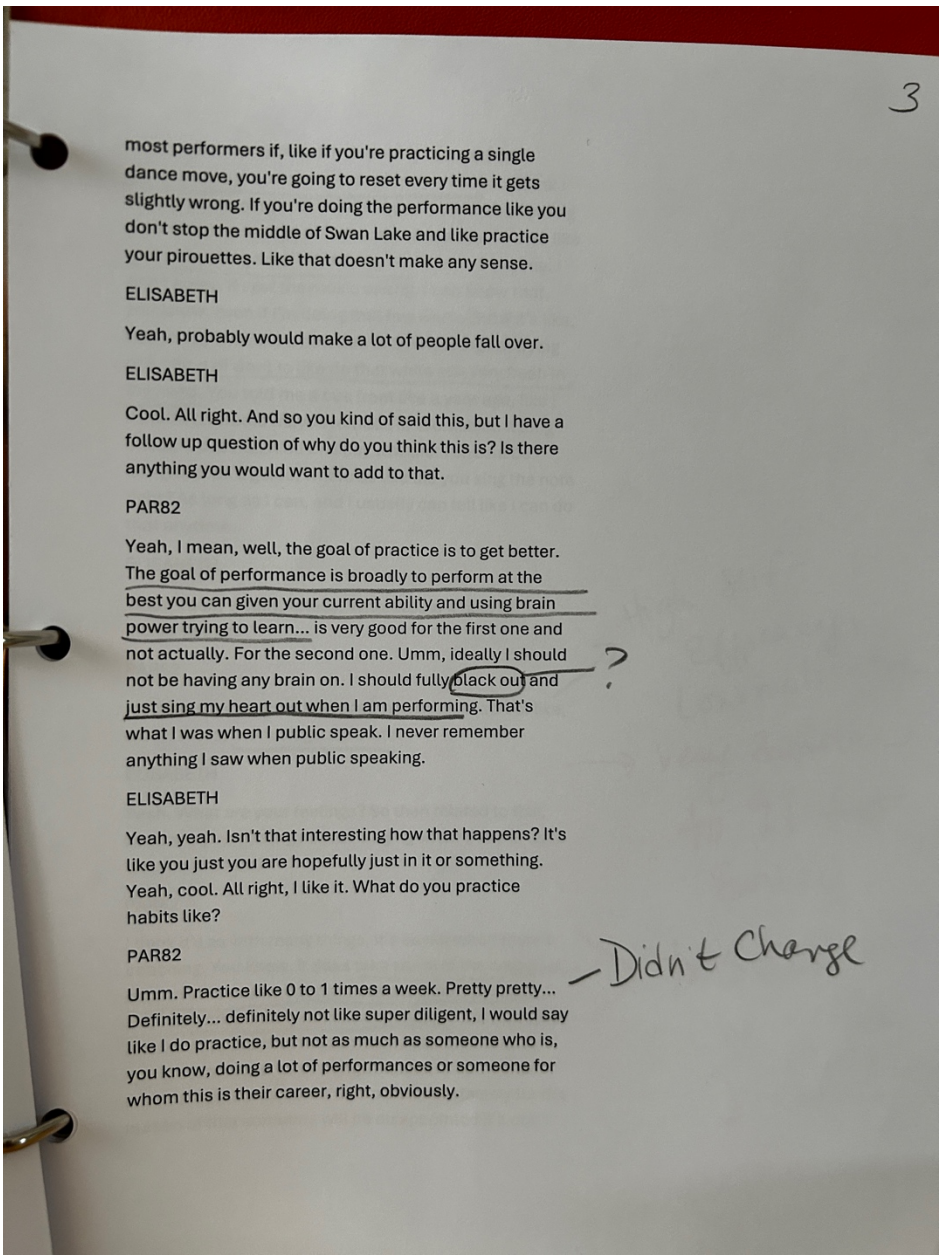
Yeah, and those are happening kind of simultaneously cause it's very rare that I sing and I'm like, I think everything was perfect and there was nothing to work on, right? It's almost always like. Yeah, of course I could be doing like, various things better, so.

ELISABETH

I mean, join the club. Also yeah. Yeah, OK, cool. Do you think about the same things when you practice as when you perform or sing through something?

PAR82

No, no. I think practice... practice is much smaller and has more of that very quick iteration. Whereas like if I'm singing through something or trying to perform something that's gonna be very... Well, in the sort of performance phase or the first thing I have to performance which would be if you say, hey, let's sing through and not stop. And you know, everyone's like well. It's just. There's still a lot. There's a lot of input there that is not super relevant, especially the like...transient adjustments of like... I forgot to do something sometimes. Like, well, I'm in the middle of something here. I'm not going to... write that down or try again, like I mean, I would imagine it very similar for



3

most performers if, like if you're practicing a single dance move, you're going to reset every time it gets slightly wrong. If you're doing the performance like you don't stop the middle of Swan Lake and like practice your pirouettes. Like that doesn't make any sense.

ELISABETH

Yeah, probably would make a lot of people fall over.

ELISABETH

Cool. All right. And so you kind of said this, but I have a follow up question of why do you think this is? Is there anything you would want to add to that.

PAR82

Yeah, I mean, well, the goal of practice is to get better. The goal of performance is broadly to perform at the best you can given your current ability and using brain power trying to learn... is very good for the first one and not actually. For the second one. Umm, ideally I should not be having any brain on. I should fully black out and just sing my heart out when I am performing. That's what I was when I public speak. I never remember anything I saw when public speaking.

?

ELISABETH

Yeah, yeah. Isn't that interesting how that happens? It's like you just you are hopefully just in it or something. Yeah, cool. All right, I like it. What do you practice habits like?

PAR82

Umm. Practice like 0 to 1 times a week. Pretty pretty... Definitely... definitely not like super diligent, I would say like I do practice, but not as much as someone who is, you know, doing a lot of performances or someone for whom this is their career, right, obviously.

– Didn't Change

I think when I practice, I'm definitely focused on whatever we practiced most recently and on... I think I practice like more of the techniques stuff than anything else, because that seems like in some ways it's also like that's the thing that I think is harder. Umm. Because. I don't know. If I get the music wrong, I can know that, you know, even if I'm doing that five week. But if it's like, especially with like a new cue or a new thing I'm trying out, I kind of want to like do that while still very fresh in my head. You told me a cue from like a year ago, like I wouldn't. I would maybe remade if. Worked on it long enough, but like. Kind of dicey whether I should be using that as a guide, where as like did you sing the note right? As long as I can, and I usually can tell like I can do that anytime.

ELISABETH

Yeah. Yeah, totally, totally. What would it take to increase this?

PAR82

I think just getting my life together more just sort of like, more, more, more diligence there.

ELISABETH

Yeah. What are your feelings? So then related to this, what are your feelings about singing when there is not a teacher present?

PAR82

I think it's as with many things, it's easier when there's coaching. You know, it does take some of the cognitive burden off because I'm not evaluating stuff as much and I can rely on someone else to do that. But also, just like the motivation in the same way that like- excuse me- It's just easier to do things together like... I mean I I've had a personal trainer in the past who largely for the reason of that someone will be disappointed if it don't

show up to the gym today. Yeah. Like it's like, they always have something new but like... The core value, like 80% of the value is just like someone's gonna text me and be like, 'Hey, what happened?' if I don't show up. I think that's more true for personal trainers than for singing. Because I'm trying to get better at singing whereas with personal training is like... you just need to get on the treadmill with some weights. Like... I'm not trying to hit a bodybuilder's physique.

ELISABETH

So, right, right. You kind of have to, like, do it, but you're not personally passionate about improving.

PAR82

Yeah. When the goals are different in a lot of ways. Like, I mean, being very candid, my health goals are very are kind of, at least if regards to like working out, are probably lower than my goals with singing 'cause I you know, I wanna get sort of as good at singing as I can where it's like I don't have any real desire or delusion of having a bodybuilder's physique or whatever else, right?

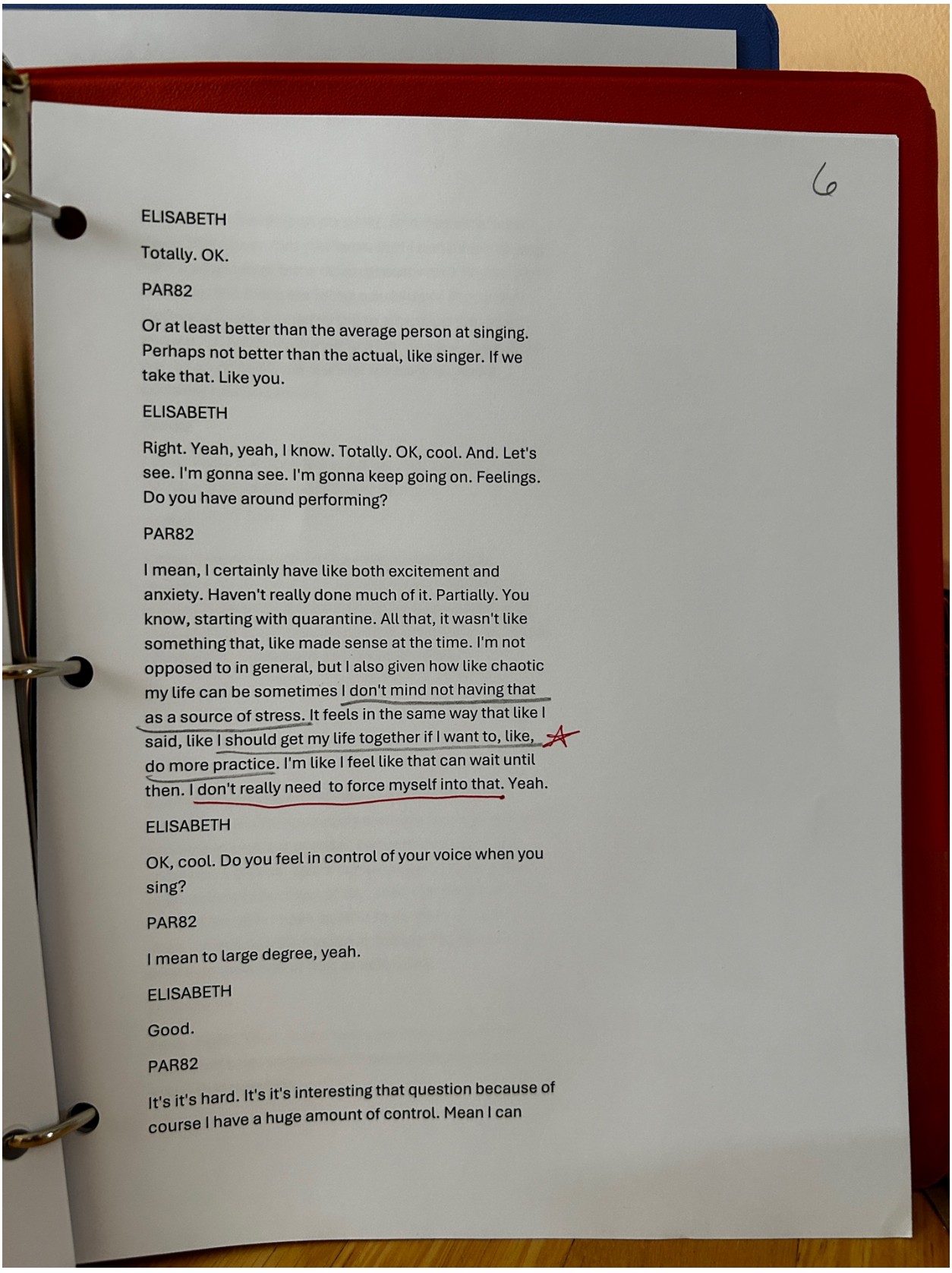
ELISABETH

Right. Yeah, totally, totally. I'm curious if you would agree with the statement that you have kind of an intrinsic motivation to sing, whereas for exercise it may be more like extrinsic like other people are...telling you should do it versus your versus you telling yourself to do it? Am I understanding that?

PAR82

I think I think somewhat, but I think the bigger factor is just that the like level of performance I am targeting. Because singing I am like... My health goals are to be reasonably healthy for an adult in the US. Whereas my singing goals are to be significantly better than the average singer in the US.

He needs a lot of external pressure just to show up, greater burden of resistance to overcome than treadmill two, maybe it uses up working memory more



6

ELISABETH

Totally. OK.

PAR82

Or at least better than the average person at singing. Perhaps not better than the actual, like singer. If we take that. Like you.

ELISABETH

Right. Yeah, yeah, I know. Totally. OK, cool. And. Let's see. I'm gonna see. I'm gonna keep going on. Feelings. Do you have around performing?

PAR82

I mean, I certainly have like both excitement and anxiety. Haven't really done much of it. Partially. You know, starting with quarantine. All that, it wasn't like something that, like made sense at the time. I'm not opposed to in general, but I also given how like chaotic my life can be sometimes I don't mind not having that as a source of stress. It feels in the same way that like I said, like I should get my life together if I want to, like, do more practice. I'm like I feel like that can wait until then. I don't really need to force myself into that. Yeah.

ELISABETH

OK, cool. Do you feel in control of your voice when you sing?

PAR82

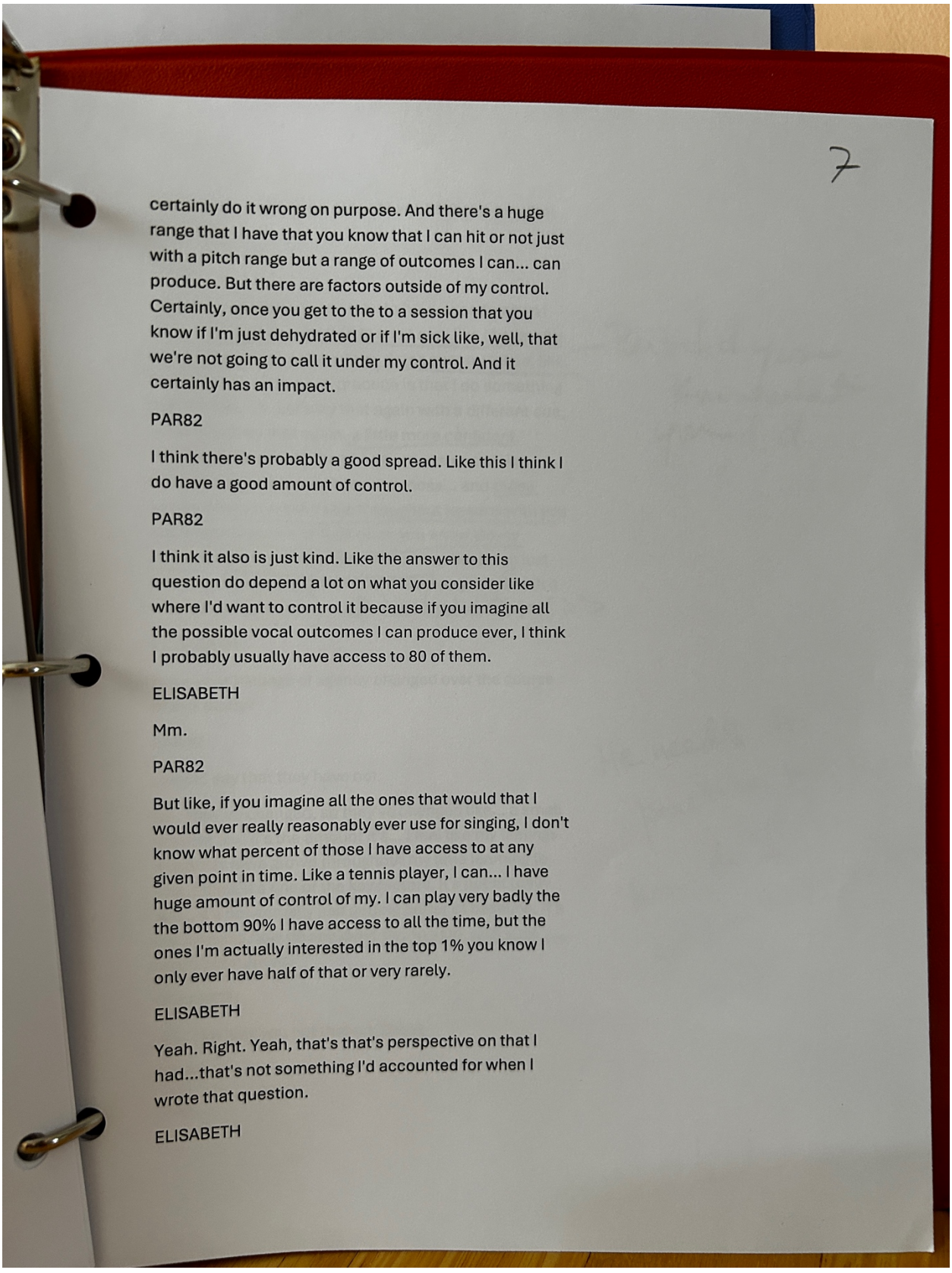
I mean to large degree, yeah.

ELISABETH

Good.

PAR82

It's it's hard. It's it's interesting that question because of course I have a huge amount of control. Mean I can


7
certainly do it wrong on purpose. And there's a huge range that I have that you know that I can hit or not just with a pitch range but a range of outcomes I can... can produce. But there are factors outside of my control. Certainly, once you get to the to a session that you know if I'm just dehydrated or if I'm sick like, well, that we're not going to call it under my control. And it certainly has an impact.
PAR82
I think there's probably a good spread. Like this I think I do have a good amount of control.
PAR82
I think it also is just kind. Like the answer to this question do depend a lot on what you consider like where I'd want to control it because if you imagine all the possible vocal outcomes I can produce ever, I think I probably usually have access to 80 of them.
ELISABETH
Mm.
PAR82
But like, if you imagine all the ones that would that I would ever really reasonably ever use for singing, I don't know what percent of those I have access to at any given point in time. Like a tennis player, I can... I have huge amount of control of my. I can play very badly the the bottom 90% I have access to all the time, but the ones I'm actually interested in the top 1% you know I only ever have half of that or very rarely.
ELISABETH
Yeah. Right. Yeah, that's that's perspective on that I had...that's not something I'd accounted for when I wrote that question.
ELISABETH

That's pretty cool, yeah. Why do you? Why do you feel this way?

PAR82

I mean, because I very clearly do have agency when I sing. Like I can change things and I can, like I have, you know, made improvements by doing second takes, like. And it's very common in practice is that I do something. And I'm like, oh. Let's try that again with a different cue, or even just try that again, a little more confident. Whatever. So clearly there's a huge amount of like control that I can have there and those... and those improvements are durable throughout lessons with you know some degree of fade often you know slowly building up as with any sort of learning. But I also just know that there are times where it's like, yeah, I wish it was behaving today.

But did you know what you did

helplessness

ELISABETH

Have your feelings of agency changed over the course of this study?

PAR82

I would say that they have not.

OK. They've changed, so they've changed like... a small amount and it's the amount it's... I feel like my feelings of agency have grown throughout my time learning to sing. I think it's one of the key factors. It's not actually like... it's not actually just getting better at baseline, It's like learning how on any given day to work with your fleshy instrument.

He needs to practice more, how do I get him to overcome this shit

ELISABETH

No, I like how you put that on. Great.

PAR82

Yeah.

ELISABETH

Yeah. Thank you.

PAR82

Yeah, but so I think I, like every you know, every time you learn new cue that is a new thing in the toolbox of. How do I get myself to sing better on a given day? So I think my agency has increased.

ELISABETH

Yeah. Yeah.

PAR82

I don't know that it has increased that much more than any other four week period working with you. I do think that, like some of some of the stuff was helpful and like I think some of the stuff has made improvements. But yeah.

ELISABETH

Yeah, totally fair. Awesome. Yeah. I appreciate the honesty that that's fantastic. OK, so I think those are my questions. And then I know you just woke up, but could you sing a little bit of of something?

Audio file

PAR91 Audio_ Semi-Structured Interview and Song.m4a

Transcript

ELISABETH

So the first. The first question is what do you think about while you sing?

PAR91

I think about what it sounds like. And since we started doing this, I think about how relaxed my, specifically my jaw is.

ELISABETH

Mm.

PAR91

I don't often think about my tongue, but with some of the drills we've done, I've observed where my tongue is from time to time. (I think I've read, or at least heard a lot about singing with your core. So as we've continued to practice more and more and get feedback and more in tune, and also with just like working out, I feel like my voice is significantly tied to my core and I at times try to align the successes of the sound that I want and the feedback you've given me to my core sometimes because I feel it engaged in some of those instances, but not always I feel like that whole neck down to my core is all tied together in some way. And then more and more recently, I'm identifying that my sort of entire body influences the sound but I'm not in any place to know if it's my neck, my shoulder or my legs or anything that are

5 (internal)

5 internal

He is sensitized to this also from yoga & pilates

Healthy body awareness

impacting it. I am aware that sort of full body... that the entire body impacts the way you sound.

Internal affecting consequence

ELISABETH

So if I could summarize that, then I would say it's a very it's physically aware.

PAR91

Yeah. Initially just head in neck areas, but more and more recently, the entire body.

ELISABETH

OK, awesome. Do you think about the same things when you practice as when you perform, and performing can include casual singing, like any singing you do, that's outside of being in a lesson or just or practicing specifically. So karaoke, hanging out with friends, whatever.

I adjusted - this question from previous experience

PAR91

Not previously, but more and more so, yes.

And. There are times where, you know, speaking of recovering [he was referring to the scaled survey], those are some of the times I was like, oh, that's why I don't sound great and sort of rely on go back to like, OK... this is... I probably need to be relaxed. Probably need to, yeah, so.

Was on a regular basis. No, I don't think about. I just sing, but if something were to go wrong or if I were just singing. And I don't know if something triggers it I can, like, you know, that sounded interesting and I can go back to being reflective and more aware instead of just singing.

ELISABETH

OK, OK.

PAR91

Often if things go wrong.

ELISABETH

Usually what causes it right?

PAR91

If I'm singing well now, like, oh, look at me, I'm relaxed. Examining what he is doing right

ELISABETH

And why do you think that is?

PAR91

I don't. I think we would just. It's like anything else, if you're doing well, you don't think about what helps you do well. Right, when you fail it's like, oh, what did I do? Right. only self reflective in failure

ELISABETH

So that makes sense.

PAR91

Yeah, I don't think it's from anything tied to like singing. I think it's just for me. It's just like tied to my human nature of being. ~~the~~ fixed ability?

ELISABETH

Yeah, I don't think it's just here. Think it's a lot? Yeah.

PAR91

Just being self-reflective, when it doesn't go the way you thought it would go, yeah.

ELISABETH

What ~~do~~ are your practice habits like?

PAR91

They could be better.

I struggle with listening to my own voice. But every time I do I learn something, so I need to get over that. So I try to listen to it and, yeah, just make friends with it like you say sometimes.

Just see what feedback you gave, what it sounded like the first time and what it sounded like the second time and sort of subconsciously knowing I am watching me, I can kind of tell in retrospect like, oh, this is probably how some of the physical sensations were when I got it wrong and what they were when I got it right. Especially because I in real time... we sort of sometimes talk about what did that feel like. That kind of... immediate post deconstruction of it. If I'm practicing, I can take a look and listen to that and say, ok, this is kind of how I sounded like.

But the other practice is just kind of informal where... I'll I'll just play a song or or sing along to something that we've been practicing and... hear when my voice sounds like and then... try to correct it or. Try to sing Octave a key higher rather and just keep going up to see if I can get sort of where I break and stuff like that.

ELISABETH

How many times a week do you practice?

PAR91

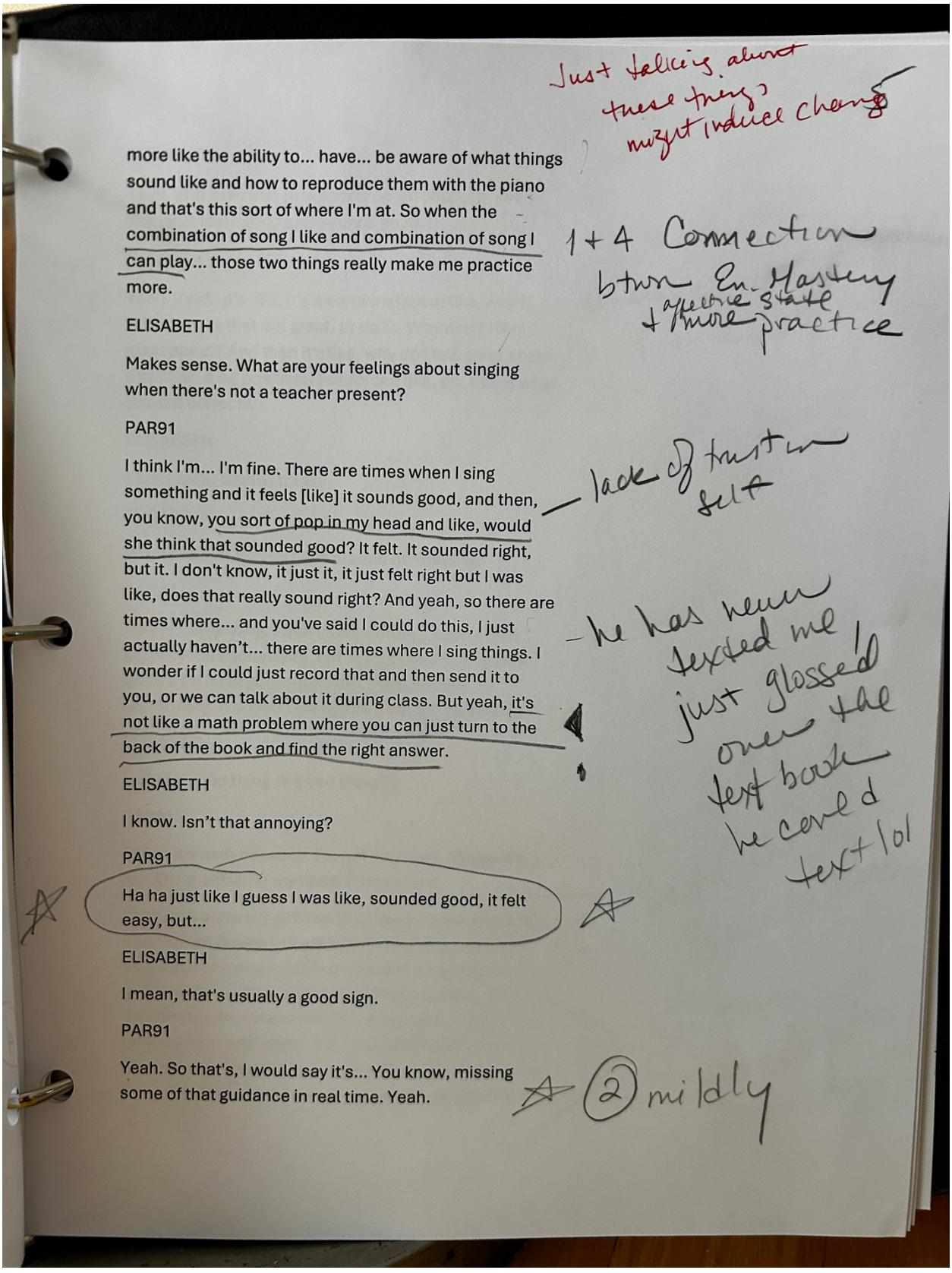
It once or twice.

ELISABETH

What would it take to increase that?

PAR91

Just discipline. I think I practice more when there's a song I really like. Umm. And then if there's a song that I can play on the piano... now just cuz I'm not overly worried about becoming a great pianist, it's just more the ability to be technically correct on the piano is just



more like the ability to... have... be aware of what things sound like and how to reproduce them with the piano and that's this sort of where I'm at. So when the combination of song I like and combination of song I can play... those two things really make me practice more.

ELISABETH

Makes sense. What are your feelings about singing when there's not a teacher present?

PAR91

I think I'm... I'm fine. There are times when I sing something and it feels [like] it sounds good, and then, you know, you sort of pop in my head and like, would she think that sounded good? It felt. It sounded right, but it. I don't know, it just it, it just felt right but I was like, does that really sound right? And yeah, so there are times where... and you've said I could do this, I just actually haven't... there are times where I sing things. I wonder if I could just record that and then send it to you, or we can talk about it during class. But yeah, it's not like a math problem where you can just turn to the back of the book and find the right answer.

ELISABETH

I know. Isn't that annoying?

PAR91

Ha ha just like I guess I was like, sounded good, it felt easy, but...

ELISABETH

I mean, that's usually a good sign.

PAR91

Yeah. So that's, I would say it's... You know, missing some of that guidance in real time. Yeah.

Just talking about these things might induce change

1+4 Connection btwn En. Mastery + affective state + more practice

lack of trust in self

he has never texted me just glossed over the text book he cared text lol

2 mildly

ELISABETH

Yeah, and then that makes you doubt yourself, even though it feels good and sounds good.

PAR91

Yeah. Yeah, it's, it's, it's a combination of like, why is that? Why is that not great, or do I... Why don't I feel good about? And then it's like, why do I feel good about this? Can it be positively reinforced like, oh, this is what you did correctly.

Unsure about 1 + 2

ELISABETH

Yeah, yeah, totally, totally.

ELISABETH

What feelings do you have around performing?

PAR91

I enjoy performing. I don't think I often... I don't think I get nervous necessarily, but. A lot of times I practice quite a bit if I'm gonna perform. Yeah, I enjoy performing. It doesn't always turn out the way I want.

ELISABETH

Is that a good thing or a bad thing?

PAR91

I think it's both because. I'm not even just. Maybe it's just like mantras in my head. It takes time.

Yeah, you know my girlfriend just gave me an article by the Harvard Business Review or something and it said like, if you're trying to learn a new skill it's going to be awkward for a while, and that's OK and literally, that was like the heading of the title. And I saw... I didn't really read it completely, but I feel like I have become OK with that. I have become OK with... yeah we've been doing this for four years and... it's like I'm not getting a

Set (low) Expectations for the immediate future

record deal tomorrow, you know, so. But I feel like I understood that and I knew. And that was the plan. The plan was just like, you know, start getting used to doing it. That's where we've learned a ton, so.

Yeah. So around performing, I just feel like it's an opportunity to learn some more, so I'm not really bothered and I'm not doing anything high stakes, you know, right.

ELISABETH

So it feels low stakes. OK, so my my follow up question was going to be why do you feel that way?

PAR91

Why do I feel feel?

ELISABETH

Why do you feel? How do you feel about performing?

PAR91

How I feel about the performance one, I think it's just, yeah, two reasons. Most of the time it's low stakes. And the other thing is I just feel like I'm on this journey and I'm not in a rush.

And the performance is just one opportunity to you know, it's like a most of them feel more like a a scrimmage, right? Not like the real thing, but. If I I would say if I were to have like something of high stakes, I probably feel a little bit more nervous, but I think out of doing this I've realized like, oh, probably shouldn't wake up tomorrow and try to go sing something. So you should probably practice so. So I feel I usually feel OK about performances because I will practice, but for things that are low stakes, I just feel like I'm on this learning journey and I don't really... I don't feel a lot of pressure, yeah.

ELISABETH

low stakes

on a journey

part of a process

framing affects enactive 8 Hasting

That's awesome. And then do you like? I guess one thing I was wondering actually, as you were speaking is have you had positive performance experiences or negative or it sounds like you've framed it in a certain way, so that it would make? What it is?

PAR91

Growing up, I think I generally had positive performance experiences and then more recently... I'm not sure if it's my singing voice or just... just relying on my personality. Why people enjoy listening to me like I... we had a friend's wedding and the after party was at karaoke and I've sung "Under the Sea" to her cousins *[in the past]*. The cousins are like mid 20s, early 30s. I've sung it twice. And they asked me like 10 times and they made me do it as the last song on the night.

ELISABETH

That's amazing.

PAR91

It's just. I was like, oh, yeah, I tried. I tried to duck away from it because it's like the whole wedding. I want her to shine and it's at this karaoke bar... and they're like, no, no. You are doing this like and one of the cousins was paid for. They paid for it. It's like no this. It has to end with you singing.

ELISABETH

That's quite a compliment, actually.

PAR91

So yeah, I. My evaluation and stuff like that because I know it's not perfect is I enjoy performing. It just gets the other, you know, squirrelly things about performing out of my body. Just, you know, go out there and do it. but yeah, I would like to be technically better.

1

3

3

4 affective state

squirrely

Audio file

PAR91 Audio Semi-Structured Interview 2.m4a

Transcript

ELISABETH

And. All right, so. Probably something happened when you started to ask. What do you think about while you sing, and then I have a follow up question which is do you think about when you practice versus when you perform?

PAR91

Yeah, no, I recently sang at karaoke and I could hear myself through the speakers or hear myself. And yeah, I...I have started thinking more and more about the things that... physical sensations. Jaw and tongue.. not as much, but... definitely what I sound like and if I'm falling out of tune. So I'm kind of I'm more aware of those.

ELISABETH

OK, OK, cool. And then, do you think about the same things when you practice as when you perform?

PAR91

Yeah, even even more so when I practice and... I guess when something doesn't sound right or when something is difficult... I can think about... body stuff... or my jaw or... Yeah. So I would say I think about similar things, but... probably more intentional and more focused when I'm practicing.

ELISABETH

And then it sounds like you have those as tools for if something goes wrong when you're singing. Is that correct?

PAR91

Yeah

ELISABETH

And why do you think this is?

PAR91

How did I get to this place or?

ELISABETH

Why do you think about different things when you practice as when you perform? And that can be how did we get to this place or generally wide.

PAR91

I think during practice I'm focused on technique and... sound, and fixing things and tinkering versus... when I'm performing I'm focused on the performance and... not really working on adapting or changing. 'Cause I feel like I can stop doing practice like oh, I wasn't good and then repeat a small piece of it over and over... where during a performance, you can't just stop and be like, oh, well, let's do that again.

ELISABETH

Much as we would like to sometimes!

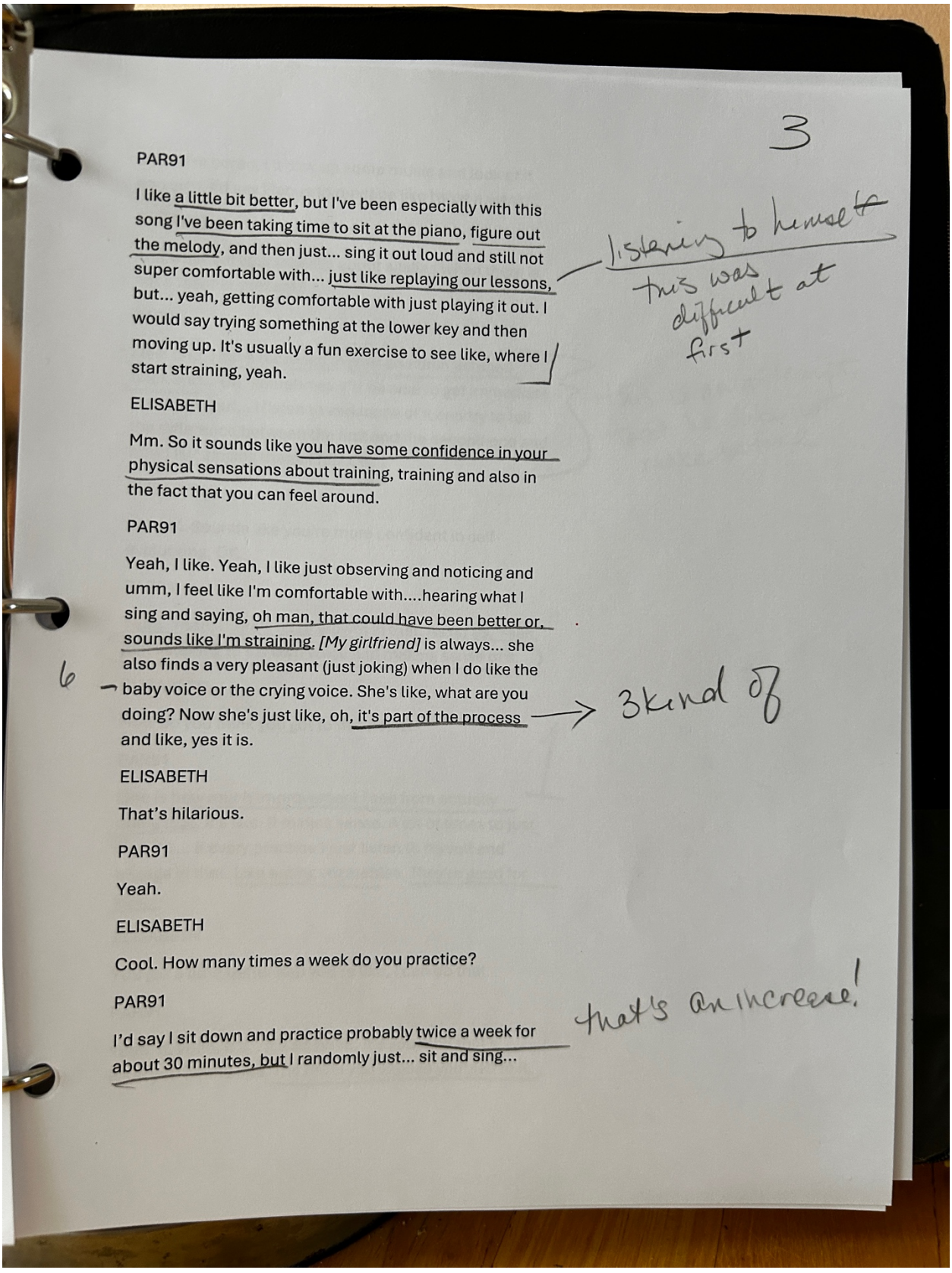
PAR91

(Laughs) Mulligan please? Please, let's start it over again.

ELISABETH

Yeah, I have a story.

What are your practice habits like?



3

PAR91

I like a little bit better, but I've been especially with this song I've been taking time to sit at the piano, figure out the melody, and then just... sing it out loud and still not super comfortable with... just like replaying our lessons, but... yeah, getting comfortable with just playing it out. I would say trying something at the lower key and then moving up. It's usually a fun exercise to see like, where I start straining, yeah.

listening to himself this was difficult at first

ELISABETH

Mm. So it sounds like you have some confidence in your physical sensations about training, training and also in the fact that you can feel around.

PAR91

Yeah, I like. Yeah, I like just observing and noticing and umm, I feel like I'm comfortable with....hearing what I sing and saying, oh man, that could have been better or, sounds like I'm straining. *[My girlfriend]* is always... she also finds a very pleasant (just joking) when I do like the baby voice or the crying voice. She's like, what are you doing? Now she's just like, oh, it's part of the process and like, yes it is.

6

3 kind of

ELISABETH

That's hilarious.

PAR91

Yeah.

ELISABETH

Cool. How many times a week do you practice?

PAR91

I'd say I sit down and practice probably twice a week for about 30 minutes, but I randomly just... sit and sing...

that's an increase!

and if I'm bored, I'll pick up some music and look at it and sing. I'd say I focus to practice like twice a week.

ELISABETH

And what are your feelings about singing when there is not a teacher present?

PAR91

I feel fine. I have recorded myself and then listened back and... Uh, sometimes it'd be nice to get immediate feedback, but... I listen to variations of it and try to tell the difference between the first and the second one and how I felt singing them. I feel OK.

this is an attempt that he did not make before

ELISABETH

OK, OK. Sounds like you're more confident in self-evaluating, OK.

PAR91

Yeah. Yeah, there's huge growth in that. As far as. Yeah, just listening to my own voice and making sense of it.

ELISABETH

How do you think you got to this point?

1

PAR91

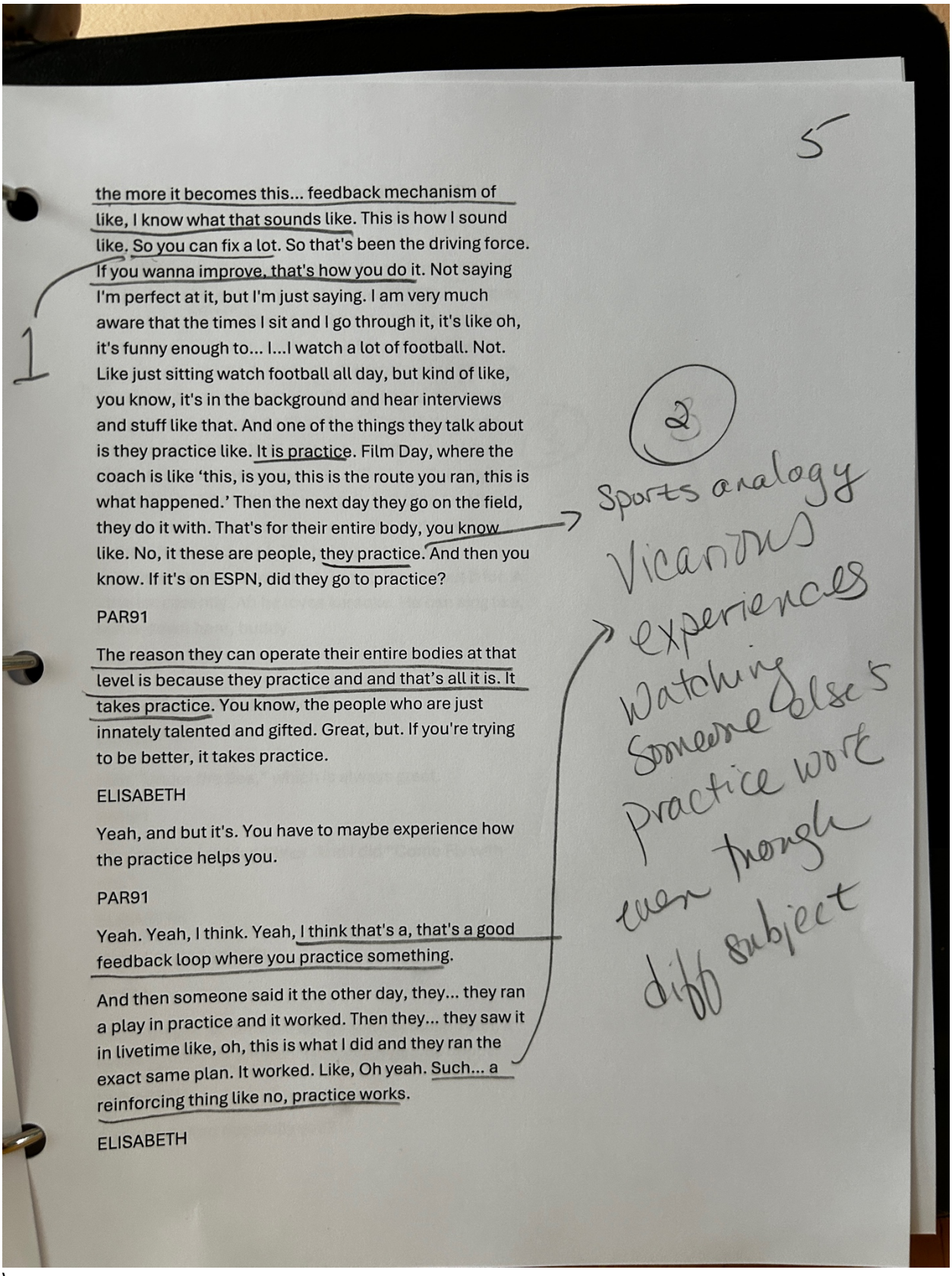
One is how much improvement I see from actually doing that. It's like. It makes sense. A lot of times to just like. If I.... if every practice I just listen to myself and engage in that. Like eating vegetables. They're good for you.

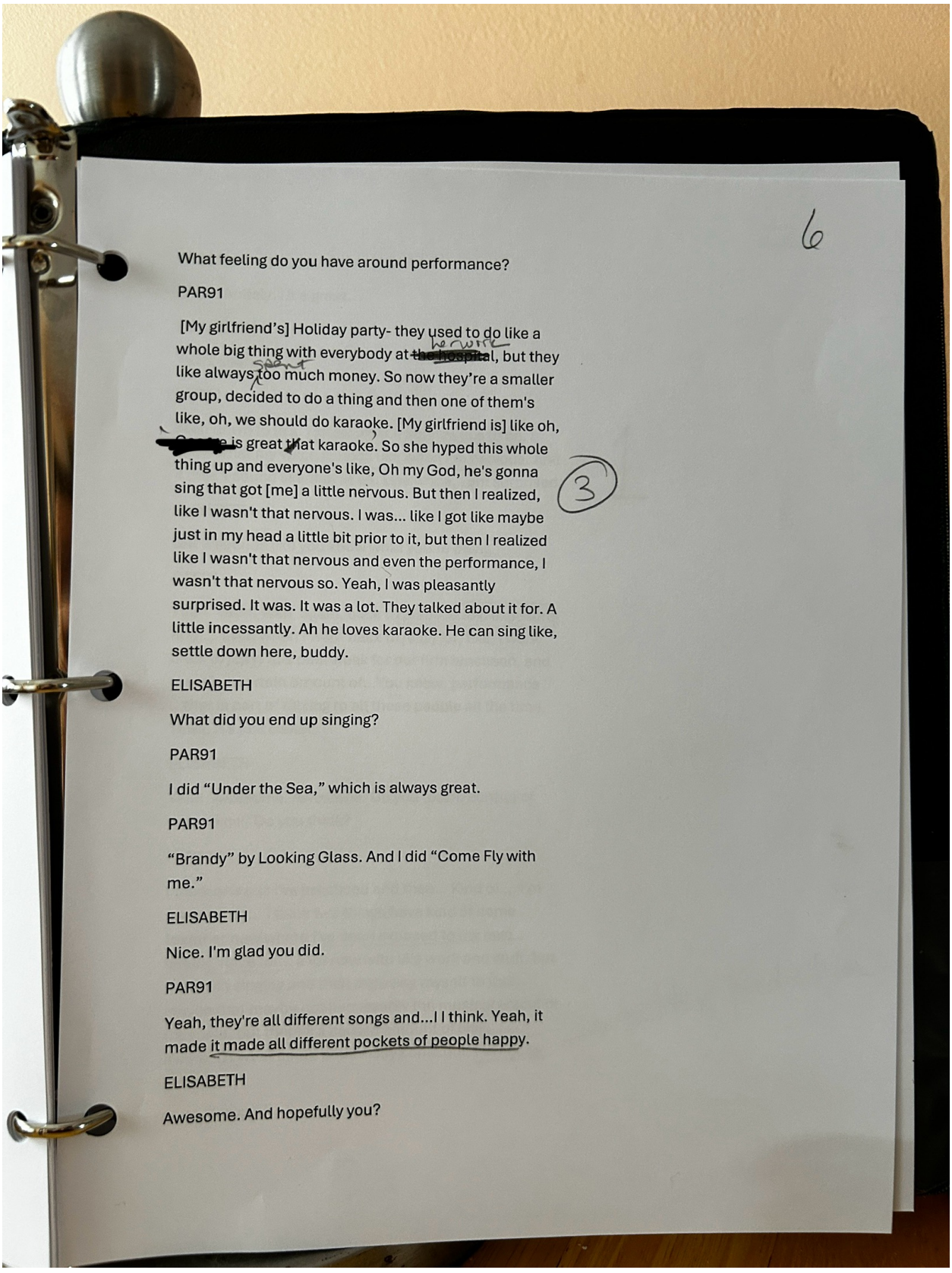
ELISABETH

You get a little better and you're like, I can do that.

PAR91

Yeah, it, yeah. It's... It's on point. It's you, and that's what you sound like. The more you expose yourself to it,


5
the more it becomes this... feedback mechanism of like, I know what that sounds like. This is how I sound like. So you can fix a lot. So that's been the driving force. If you wanna improve, that's how you do it. Not saying I'm perfect at it, but I'm just saying. I am very much aware that the times I sit and I go through it, it's like oh, it's funny enough to... I...I watch a lot of football. Not. Like just sitting watch football all day, but kind of like, you know, it's in the background and hear interviews and stuff like that. And one of the things they talk about is they practice like. It is practice. Film Day, where the coach is like 'this, is you, this is the route you ran, this is what happened.' Then the next day they go on the field, they do it with. That's for their entire body, you know like. No, it these are people, they practice. And then you know. If it's on ESPN, did they go to practice?
1
2
Sports analogy
Vicarious experiences
Watching Someone Else's practice work even though diff subject
PAR91
The reason they can operate their entire bodies at that level is because they practice and and that's all it is. It takes practice. You know, the people who are just innately talented and gifted. Great, but. If you're trying to be better, it takes practice.
ELISABETH
Yeah, and but it's. You have to maybe experience how the practice helps you.
PAR91
Yeah. Yeah, I think. Yeah, I think that's a, that's a good feedback loop where you practice something.
And then someone said it the other day, they... they ran a play in practice and it worked. Then they... they saw it in livetime like, oh, this is what I did and they ran the exact same plan. It worked. Like, Oh yeah. Such... a reinforcing thing like no, practice works.
ELISABETH



6

What feeling do you have around performance?

PAR91

[My girlfriend's] Holiday party- they used to do like a whole big thing with everybody at the hospital, but they like always spent too much money. So now they're a smaller group, decided to do a thing and then one of them's like, oh, we should do karaoke. [My girlfriend is] like oh, [illegible] is great that karaoke. So she hyped this whole thing up and everyone's like, Oh my God, he's gonna sing that got [me] a little nervous. But then I realized, like I wasn't that nervous. I was... like I got like maybe just in my head a little bit prior to it, but then I realized like I wasn't that nervous and even the performance, I wasn't that nervous so. Yeah, I was pleasantly surprised. It was. It was a lot. They talked about it for. A little incessantly. Ah he loves karaoke. He can sing like, settle down here, buddy.

ELISABETH

What did you end up singing?

PAR91

I did "Under the Sea," which is always great.

PAR91

"Brandy" by Looking Glass. And I did "Come Fly with me."

ELISABETH

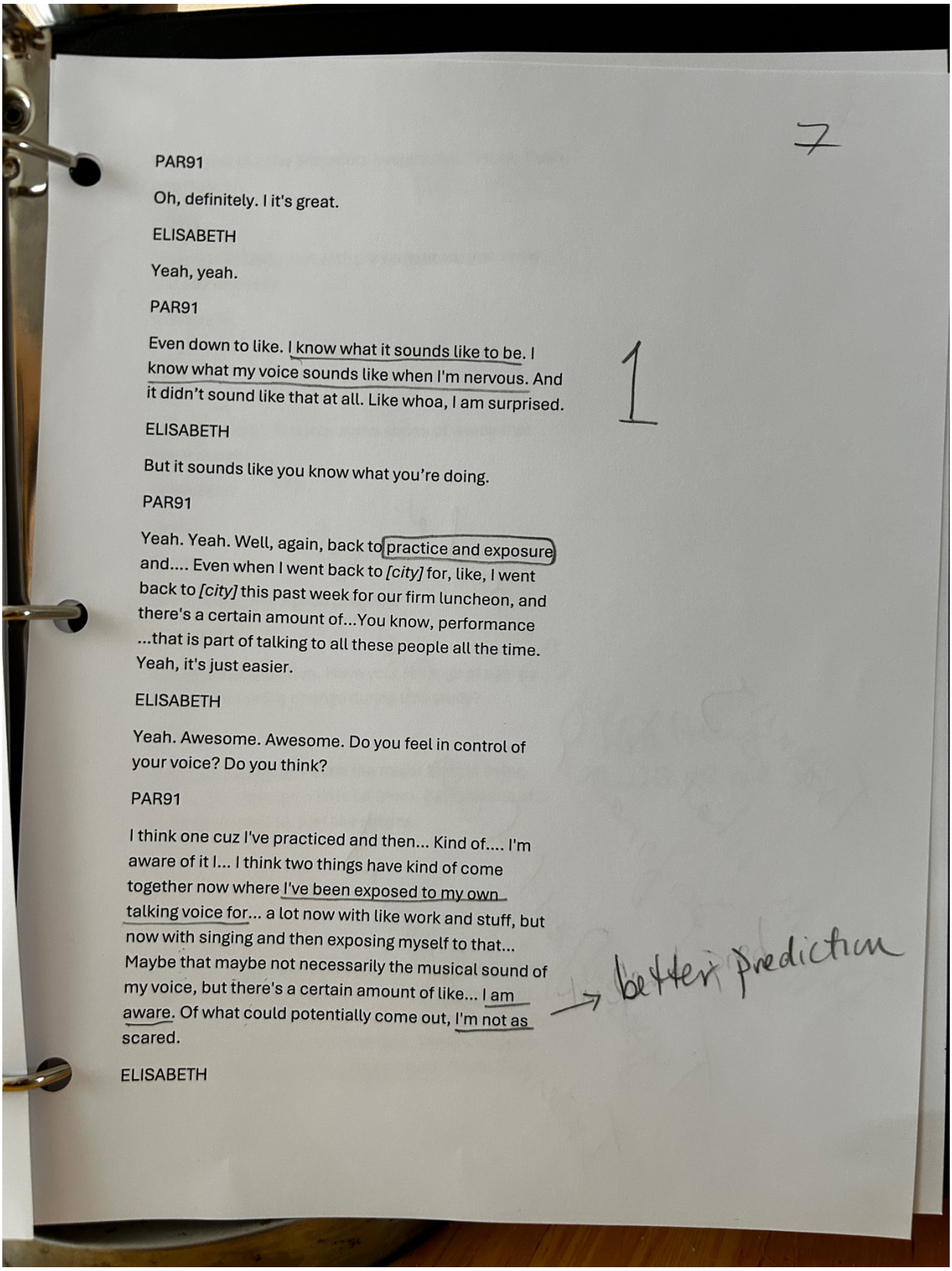
Nice. I'm glad you did.

PAR91

Yeah, they're all different songs and...I I think. Yeah, it made it made all different pockets of people happy.

ELISABETH

Awesome. And hopefully you?



7

PAR91

Oh, definitely. I it's great.

ELISABETH

Yeah, yeah.

PAR91

Even down to like. I know what it sounds like to be. I know what my voice sounds like when I'm nervous. And it didn't sound like that at all. Like whoa, I am surprised.

1

ELISABETH

But it sounds like you know what you're doing.

PAR91

Yeah. Yeah. Well, again, back to practice and exposure and.... Even when I went back to *[city]* for, like, I went back to *[city]* this past week for our firm luncheon, and there's a certain amount of...You know, performance ...that is part of talking to all these people all the time. Yeah, it's just easier.

ELISABETH

Yeah. Awesome. Awesome. Do you feel in control of your voice? Do you think?

PAR91

I think one cuz I've practiced and then... Kind of.... I'm aware of it I... I think two things have kind of come together now where I've been exposed to my own talking voice for... a lot now with like work and stuff, but now with singing and then exposing myself to that... Maybe that maybe not necessarily the musical sound of my voice, but there's a certain amount of like... I am aware. Of what could potentially come out, I'm not as scared.

→ better prediction

ELISABETH

Framing
Diff in what they regarded as performance
Types of self-focus -
Internal & External
Control vs. aware (7-5)

It's not just like the line opera singers use: "Hook, Push, and Pray." Helpless

PAR91

[laughs] I've done that with presentations, you know, just talk and pray.

ELISABETH

Yeah.

PAR91

You gonna run? Run into some series of words that make sense.

ELISABETH

Yeah.

PAR91

Not a. Not a, not a good practice.

ELISABETH

Now the last question. Have your feelings of agency around your voice change during this study?

healthy awareness

PAR91

Yeah, it has. I think. I think the major thing is being aware. Of... tension a little bit more. Being aware of... pushing instead of, just like singing.

ELISABETH

OK.

PAR91

And yeah. I think there's a certain amount, and I think one of the lessons I was like, it makes sense to just relax into it, you know, and... and even more recently, maybe the last class or something. There's just this point, like when my core gets engaged. This is even

more... Just like not even in. In so this. One time I was doing physical therapy. It was just this lady was like, you know, your head's heavy. Like 9, 10 pounds. You know, you know and your body has to carry it. So, if your core is weak, all of these things just start. Just falls apart. It's just like this, you know. You know, it just starts falling apart, so. Yeah. The stronger your core gets. I can see how like your neck is like, 'Oh my God, freedom.'

connections to other disciplines

Primed before my study

ELISABETH

Yeah. So you felt like, by releasing your jaw and tongue tension, you were able to find your core activation more.

PAR91

Yes. As I was intentionally making sure like, this is not doing this, my body is like, OK, where else can I get support for this giant head? It's like, alright!

ELISABETH

You have the right tools! That's awesome. That's how everything I have. Any questions for me?

PAR91

No, no. Yeah. Let me know how it. I'll be curious of your findings and if your paper is something you can share, I would love to read it.

PAR 9 |

Big increase in experiences that would enhance self-efficacy

Lots of talk about awareness

His framing and expectations affected his feelings of self-efficacy, some of that was from me.

Exposure to the sound of his own voice - he was able to get over himself and listen to lessons