How well do we listen?

The VoicePrint voices recognition study

Executive Summary

VoicePrint's voices recognition study sought to understand how well we listen and the particular misunderstandings that occur between one voice and another. 107 respondents, including 'novices', 'intermediates' and 'experts' completed the trial, which found the performance of the untrained ear is little better than 'hit or miss'. As little as four hours of voices training can make a statistically significant difference in the quality and accuracy of people's listening, and additional training further improves listening performance. Clear differences were found between the average scores of experts, intermediates and novices, performance also varied widely between individuals in each category. Most respondents expressed disappointment in their score, having expected to do better.

The results show that being 'talk-wise' requires more than naming and explaining the voices. It requires an understanding of what each sounds like in practice and what distinguishes it from the others. Similarly, being able to produce, or speak with, the voices, is necessary but not enough. Being 'talk-wise' requires the ability to recognise them in the moment, when used by others.

Inquire, Direct and Advise are the easiest voices to recognise. Diagnose is the hardest to recognise, most often being confused for Probe. Advocate is the second hardest voice to recognise, most often confused with Directing and Articulating. These insights give valuable clues as to what specifically needs to be said and done to avoid potential misunderstandings. For example, 'I'm summarising rather than judging' prevents Articulate being mistaken for Evaluating (or Criticising). 'I'm still making sense of how these things are connected and what that might be telling us' signals that the speaker is in the process of Diagnosing. 'Let me give you my personal view' clarifies that the speaker is Advocating rather than Directing or offering a more neutral Articulation.

Opportunities for further research include expanding the study with a larger sample size, in order to investigate the potential role of individual differentiators on listening performance, such as role, ethnicity or age.

Introduction

Being ‘talk wise’ is about using talk to good effect. It involves monitoring and managing the what, why, when, where, how and with what effect of our talking. But it also has to be about good listening. So how well do we listen? The headline answers, this piece of VoicePrint research would suggest, are:

1. generally not well;
2. significantly better following even a small investment of training;
3. potentially very much better with the right sort of training.

This VoicePrint research study took the form of a voices recognition trial. Participants were asked to listen to thirty short audio clips and, after each one, to identify it as one of the nine voices specified in the VoicePrint model: Inquire, Probe, Diagnose, Advocate, Advise, Articulate, Direct, Challenge or Evaluate. They could also choose to answer ‘Don’t Know,’ although this option was seldom invoked, with ‘Don’t Knows’ amounting to fewer than 1% of all responses.

Prior to completing the trial itself participants were invited to study, and to download for ready reference, a single page of explanation, providing concise one-line definitions of each voice. They could also complete three example questions before proceeding to the scored trial.

A total of 107 respondents completed the trial. They comprised 34 ‘novices’ for whom this was their first encounter with VoicePrint and its constructs, 34 ‘intermediates’ who had previously acquired some familiarity with VoicePrint in the context of a personal or professional development programme, and 39 ‘experts’ who had successfully completed VoicePrint’s two-day accredited practitioner training course and had used the concepts in their own practice.

Objectives and outcomes

The study had two broad objectives: first, to seek empirical evidence that ‘voices’ training improves performance, and secondly, to understand more about the particular misunderstandings that occur between one voice and another. As well as finding that training does make a significant difference, the results of the study also shed important light on particular aspects of what makes good listening difficult, and on how training people to listen well can be further refined.

Results

1. Getting it right

Category	Novices	Intermediates	Experts
Mean score	14.2	17.7	20.0
% correct	53%	66%	74%
Median score	14	18	21
Highest score	22	21	26
Lowest score	8	11	14

Table 1: Performance (correct answers)

The performance of the untrained ear is little better than 'hit or miss'. The novice group averaged a score of 14.2 out of 27 (53%). Even when explicitly cued to listen carefully and provided with a broad sense of what to listen for, people generally find it difficult to make out the particular purpose or intent of a specific utterance.

Averaging 17.7 (66%), the intermediate group scored better at a statistically significant level. Their prior acquaintance with VoicePrint, and familiarisation with the voices, came from having completed a self-perception profile and having received some explanation of the model and of their own results, either as part of a learning group or in the course of personal coaching. This suggests that even a relatively short intervention, as little as four hours, can make a significant difference in the quality and accuracy of people's listening.

The more thoroughly trained group, designated 'expert' for the purposes of this comparative study, performed better still. With a mean score of 20.0 (74%) and a median of 21, this further improvement was also statistically significant, demonstrating that more training makes better listeners.

2. Speed of Response

What the speed of response figures show is not that Experts arrive at the right answers faster than others but that they make better use of the same time. The interesting result in terms of speed is that incorrect answers tend to take longer. This was true for all groups and is further evidence that training people to 'know the voices' will yield benefit in terms of 'in the moment' performance. It also suggests the general existence of a momentary 'wondering' process, a reflective pause that can be educated to distinguish the voices and the intentions behind them. If you know what to do with that 'wondering pause,' a few extra seconds can make a significant difference in the quality of your listening.

	Novices		Intermediates		Experts	
	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect
Mean Time	27	35	25	36	26	37
Standard Deviation	7.83	10.44	11.62	16.73	9.09	17.38
Fastest Time	15	19	10	12	14	16
Slowest Time	52	66	59	67	51	104

Table 2: Performance (response times, in seconds)

3. The value of disappointment

Encouragingly, most respondents were disappointed with their performance. This was true for all three categories. They expected to do better. They thought they were better listeners than, in this context at least, they turned out to be. Part of the value of this, or any other listening test, may simply be in highlighting the gap between expectation and performance and sharpening people's motivation to do something to close it.

4. Good listening is highly individual

Some people are much better listeners than others. This might seem like a statement of the obvious, but it has two important implications. First, the quality and success of a discussion can be compromised by a single poor listener. Secondly, we each have a responsibility to work on the quality and accuracy of our listening.

While there were clear differences between the average scores of experts, intermediates and novices respectively, performance also varied widely from one individual to another in each of the groups. Among experts overall scores ranged from 14 to 26; among intermediates from 11 to 21 and most widely of all among novices from 8 to 22. This level of variability suggests that there are other aspects, either of the listener or of the voices, or both, that need to be taken into consideration when training people to listen well.

5. Searching for individual differentiators

In analysing the results of the voices trial, we investigated whether gender made a difference. One of our hypotheses was that women might prove to be more discerning listeners than men. This study found no evidence to support either that idea or the hypothesis that men might be faster to arrive at

their decisions. There was no statistically significant gender difference in either accuracy or speed of voice recognition.

Being a relatively small-scale study, we were unable to investigate whether role, ethnicity or age make any difference to accuracy or speed when it comes to recognising the intention of a voice. These may be interesting possibilities to explore in future.

In the meantime we did examine whether the ability to recognise a particular voice is influenced by the individual's own disposition to use that voice. It appears not. Having a relatively high (or low) score on a voice in your own VoicePrint profile does not correlate with better (or poorer) recognition of that voice when used by others. Using 360 feedback data might reveal a different story, but such data were not available in this study.

6. Talking and listening are distinct capabilities

The finding that one's own (even self-reported) tendency to use a voice does not appear to affect one's ability to recognise it was a surprising result. It has important implications. It means that we cannot simply infer particular qualities of listening, or degrees of attunement, from an individual's self-report profile. The evidence points to a 'double dissociation' between speaking and hearing. Successfully generating our own speech acts and successfully processing what we hear others saying are fundamentally different tasks and processes, and each needs attention and development in its own right.

7. Some voices are harder to recognise than others

Overall the three voices that respondents found easiest to recognise were Inquire, Direct and Advise. Interestingly, these comprise one from each of the three principal angles (Exploring, Controlling and Positioning) in the VoicePrint model, although not exactly its three cardinal points. Advocate turned out to be one of the voices that people found most difficult to distinguish, although the hardest of all by a large margin was Diagnose.

8. Clarifying the confusions - voice by voice

The pattern of mis-identifications (both the frequency and the range of them) varies not only from one group of respondents to another (with Novices showing the largest and Experts the smallest range of misunderstandings), but also from one voice to another.

	Novices	Intermediates	Experts	Average	The Experts' Edge*
Voice	% of mis-hearings	% of mis-hearings	% of mis-hearings	% of mis-hearings	In % points
Articulate	50	28	21	33	29
Advocate	64	41	31	45	33
Advise	25	28	19	24	6
Challenge	42	45	23	37	19
Direct	35	14	12	20	23
Evaluate	41	39	24	35	17
Probe	44	27	35	35	9
Inquire	25	9	5	13	20
Diagnose	86	54	57	66	29

Table 3: Percentage of mis-hearings by voice and by category of respondent

*The extent to which Experts heard more accurately than Novices.

The following section explores what might be happening instead, when voices are mis-heard, presenting the voices from most often mis-heard, to least often mis-heard.

The Diagnose voice proved to be the hardest to distinguish for respondents across all three categories. Its exploratory nature at least is recognised. When mis-heard, it is most commonly identified (two thirds of the time) as Probing or, less commonly, as Inquiring. But its distinctive character is not well recognised. Yet we know from the statistical analysis that validated the VoicePrint model that Diagnose, like the other voices, is empirically distinct. There is a Diagnose voice, so why do people have so much trouble hearing it?

We hypothesised that the Diagnose voice might be difficult to recognise, because it is more commonly internal than external, heard in the head rather than spoken aloud. The results of the present study support this idea. They also highlight the danger that arises if Diagnosing is confined to solitary thinking: its distinctive contribution may then be under-valued, its connecting and sense-making function under-appreciated. As noted below, the Articulate voice is commonly thought to be Diagnose. But that is to mistake the product - the expression of a diagnosis - for the process that develops and produces it. There may therefore be a double over-looking of the benefits to be obtained from Diagnosing, and of doing it expressly and jointly, rather than leaving it dispersed and hidden from view in the realm of individuals' unspoken thinking.

When mis-heard, Advocate is most commonly thought to be the Direct voice. This is an understandable confusion inasmuch as they are both ways of saying what should be done. But they do so from very different foundations. The Advocate voice has to make its case: it is implicitly one view among many. The Direct voice acknowledges no other possibilities: it assumes an exclusive right to decide. Hearing advocacy as a directive rather than a proposition produces confusion about what is and is not discussable or negotiable. The next most frequent mistake with Advocating is to hear it as Articulating. This credits the advocacy with more objectivity than it deserves, overlooking its essentially personal foundation, although it might also have a useful effect in reducing the chances of it being prematurely rejected as partisan or self-serving.

When mis-heard, Challenge is most commonly heard as another form of the Direct voice. These are adjacent voices in the Controlling family, so in that respect this mis-hearing is not a radical one. But all the voices in this cluster carry the risk of making the hearer feel inappropriately dominated and then resenting or resisting that feeling. The particular danger in hearing Challenge as Direct is of overlooking the good intention that might lie behind it, the wish to improve the proceedings in the common interest. That danger perhaps recedes when Challenge is heard as Advise, which is its next most frequent misinterpretation.

Evaluate is frequently heard as the Articulate voice, and this is probably because of the objective quality that they share when used well. But Evaluate is more commonly mistaken for Diagnose. This is most likely because they are both implicated in the process of problem-solving, or at least of thinking things through. But Diagnosing is more specifically the process of analysing and connecting, arriving at an understanding of problems, causes and consequences, while Evaluating is more specifically the process of weighing up and arriving at a judgement about the possible solutions or courses of action. Evaluate is a step nearer to closure than Diagnose is.

When mis-heard, Probe is almost invariably (in over 80% of cases for Experts, Intermediates and Novices alike) mistaken for its neighbour, Inquire. This is not a particularly serious misreading, since the essentially exploratory function of the voice is being recognised. Hearing a Probe as a more open question than it is may even have the advantage of making it feel easier to answer (although some of our other research into cultural differences in the relative use of Inquire suggests that its perceived open-mindedness can make it feel threatening in some 'high-context' cultures[1]). However, hearing a Probe as a more open question than it is intended to be potentially robs it of some of its focusing power and efficiency.

[1] For more on high- and low-context cultures, see Erin Meyer's *The Culture Map*, Chapter 1

When mis-heard, Articulate is most commonly identified as Diagnose, or somewhat less frequently as Evaluate. These are not necessarily very serious misunderstandings, since Diagnosing is a process that contributes to producing a thoughtful exposition and good Evaluating shares the patience and objectivity of good Articulating. However, there may be more negative consequences. The Articulate voice's distinctive contributions, its neutrality and its potential for setting out a basis of shared understanding, will not be recognised or appreciated, if it is being mis-heard as simply one person's interpretation or as an essentially critical commentary.

When mis-heard, Advise is most commonly understood to be a softened, disguised or indirect form of either Advocating, or less commonly Challenging (the two voices adjacent to Advise in the VoicePrint model). Novices sometimes mistake it for Articulate which, as noted above, is a voice that the untrained ear has particular difficulty in correctly recognising.

Direct, as might be expected, is relatively seldom mis-heard. When it is, it tends to be interpreted either as Challenge, a corrective interruption, or as Advise, in effect as a firm or insistent form of guidance. Note in passing that the reverse, hearing Advise as a disguised form of the Direct voice, seldom happened in the present study, however this may be a function of the particular examples used. In practice it may be that Advise can be mis-heard as a softened form of Directing. While that potentially reduces the social risk attached to 'telling', it increases the risk of the directive being heard as more optional than it is intended to be. Direct is also occasionally mistaken for the Articulate voice, perhaps because they can share a matter-of-fact quality. But they are fundamentally different. Direct is the matter-of-fact spelling out of a requirement, while Articulate is the matter-of-fact explanation of a situation or understanding.

Inquire is the most readily recognised of the nine voices but when it is mis-heard, it is most commonly as Probe, suggesting that the intended open-ness of the Inquiry has been lost, either through the way the questioner has asked or by how the listener has heard. The moral is that when using the Exploring voices, it is important to convey the real nature of the question, to clarify whether it comes without preconception, or whether it has a particular focus or is part of a developing train of thought.

This also calls attention to a bigger problem that arises from the way the interrogative form of speech is so often used in practice to camouflage another voice. The results of the voices trial revealed that Inquire can even be heard as something radically different, the Direct voice. Resolving significant misunderstandings like this emerged as one of the most immediate benefits to be obtained from

'voices' training. On the rare occasions that our Experts mistook Inquire, it was to hear it as Probe, whereas our Intermediates mistook it for either Probe, Direct or Challenge and our Novices could mis-hear it in a great variety of ways, as Probe, Direct, Challenge, Advocate, Diagnose, Articulate or Advise.

To train ourselves as listeners

So what does this voices recognition trial tell us about how to improve people's listening? After all, even our Experts, although they out-performed others, did less well than either they or we would have expected or wished. There seem to be four key learnings:

1. It is necessary but not sufficient to know that there are nine different voices and to be able to name and explain them. To be 'talk-wise' you also need to know much more specifically what each sounds like, what distinguishes it in practice from the others. You need a repertoire of 'possible distinguishing features' at your disposal. For instance, as basic examples, you need to know that 'I think…' is a very common precursor to the Advocate voice, that 'suggest' often indicates the Advise voice and that 'I wonder whether…' is most likely to signal either the Challenge or the Diagnose voice. Building up this sort of understanding is part of VoicePrint's purpose.

2. Being able to produce the voices, to speak with them and to do so in skilful and timely ways, is also necessary but not enough. To be 'talk-wise' you also need to be able to recognise them in the moment when other people use them. Speaking is not listening. Producing is not recognising. The two processes are distinct and each needs to be developed in its own right. You need to be ready to use your repertoire of possible distinguishing features when both listening and speaking.

3. Having, through this study, mapped where the confusions between particular voices tend to occur, we now have a much clearer sense of where distinguishing features are most necessary and when our own acts of clarification need to happen. We also have a much better idea of what specifically needs to be said and done to avoid these potential misunderstandings. For example, 'This is a requirement, not a recommendation' prevents the Direct voice being mistaken for Advise. 'I'm summarising rather than judging' prevents Articulate being mistaken for Evaluating (or Criticising). Asking 'What's your train of thought?' helps to surface the Diagnosing behind what might otherwise have been a puzzlingly isolated question.

4. Being ‘talk-wise’ is partly about comprehension, but it is particularly about active awareness, and this is acquired and kept sharp through practice. There is a certain amount to be learned: the nine voices, the turns of phrase, tones, pacing and postures that distinguish them from one another. But these learnings will only be useful, if they are practised. And this means practised both in the sense of deliberately rehearsed and reinforced, and also in the sense of being used in practice on a daily basis.

VoicePrint and TalkWise training has been developed to incorporate these learnings.

With thanks to all the volunteers who took part in the study and to Dr Jane Pollock of Oxford University for her work both in designing the study and in conducting and interpreting the statistical analysis.

Appendix - The Distribution of Confusions

How does each voice tend to be mis-heard, to what extent and by whom?

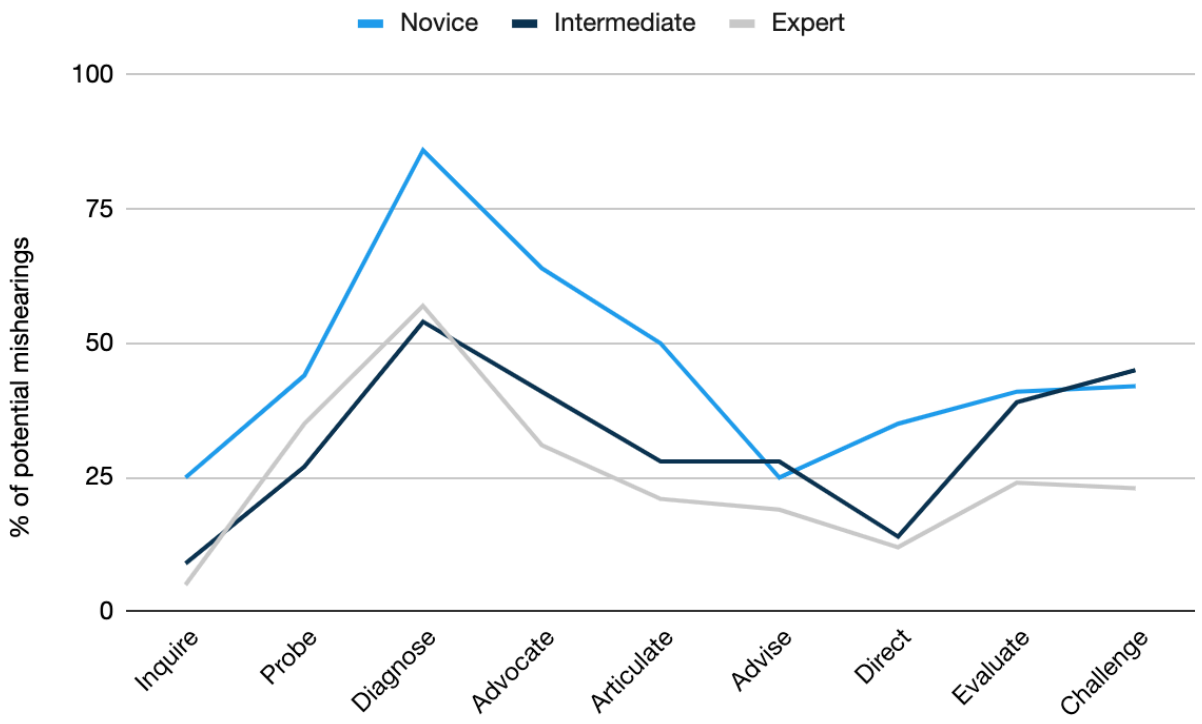

Figure 1: Percentage of mis-hearings by voice and by category of respondent

How does each voice tend to be mis-heard, to what extent, by novices?

This section provides more detail on the novice results. The shape of mishearing is not fundamentally different among the three groups, but is most acute and therefore most clearly illustrated with reference to the novice - or untrained - group.

The Exploring Voices

The untrained ear hears the **Inquire** voice correctly 73% of the time. What they hear instead when they mis-hear is most often the Probe voice.

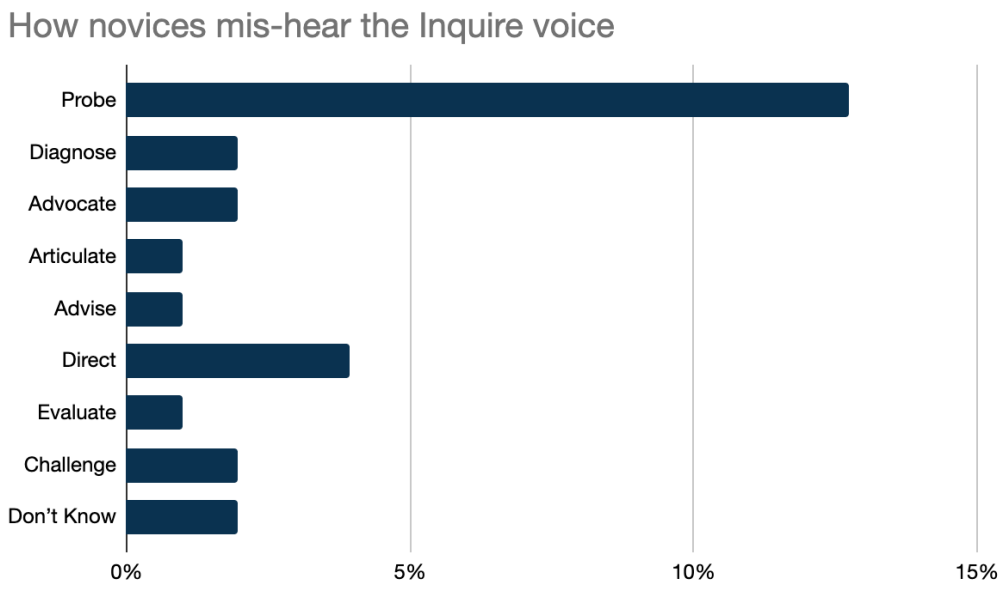

Figure 2: How novices mis-hear the Inquire voice

The untrained ear hears the **Probe** voice correctly 55% of the time. What they hear instead when they mis-hear is most often the Inquire voice.

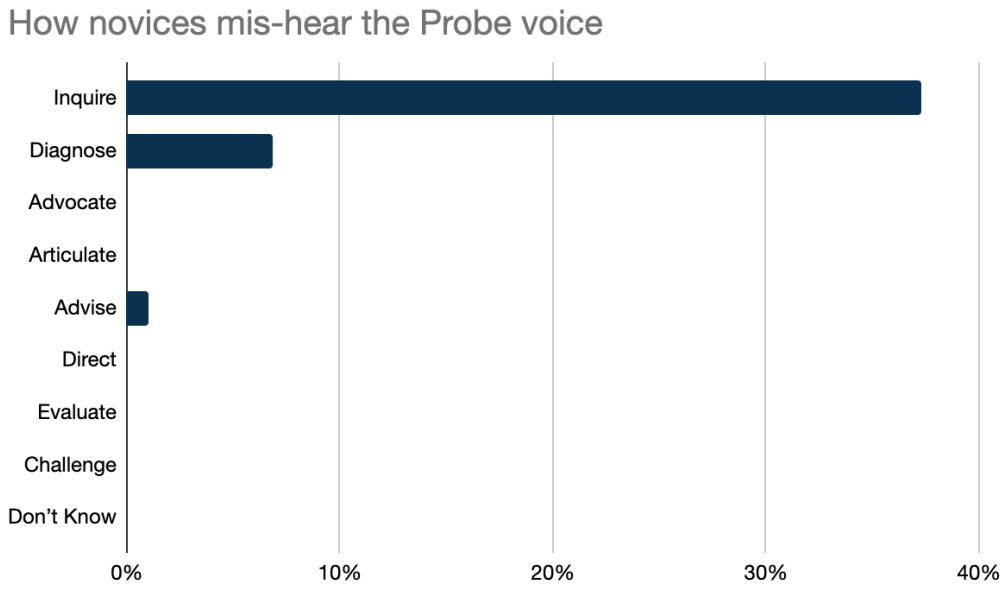

Figure 3: How novices mis-hear the Probe voice

The untrained ear hears the **Diagnose** voice correctly only 13% of the time. What they hear instead when they mis-hear is most often the Probe voice.

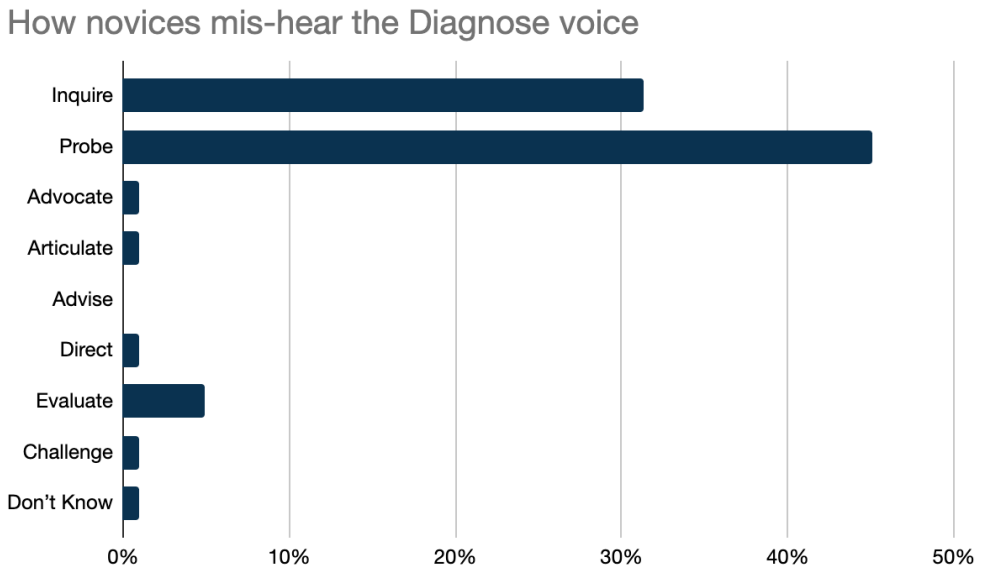

Figure 4: How novices mis-hear the Diagnose voice

The Positioning Voices

The untrained ear hears the **Advocate** voice correctly 34% of the time. What they hear instead when they mis-hear is most often the Direct voice.

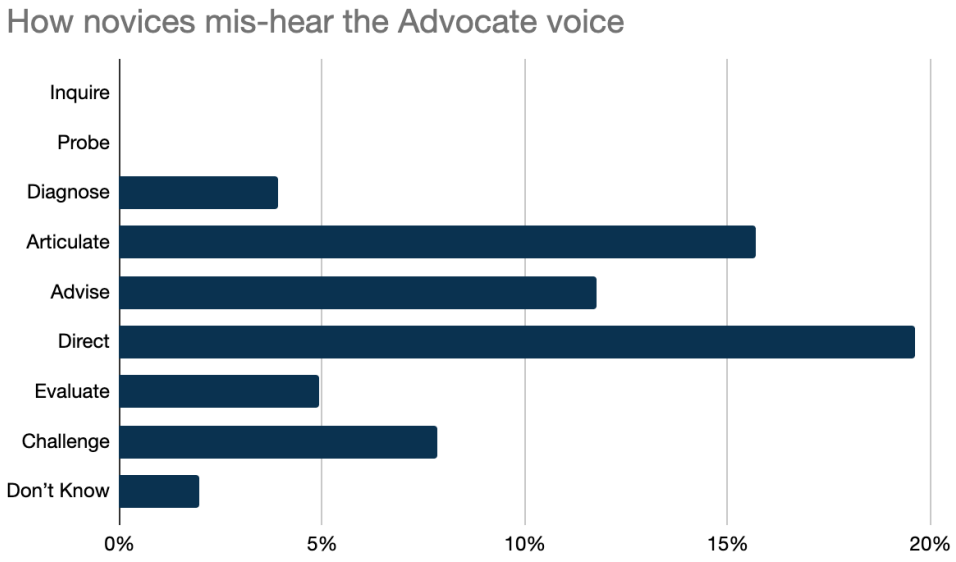

Figure 5: How novices mis-hear the Advocate voice

The untrained ear hears the **Articulate** voice correctly 48% of the time. What they hear instead when they mis-hear is most often the Diagnose voice.

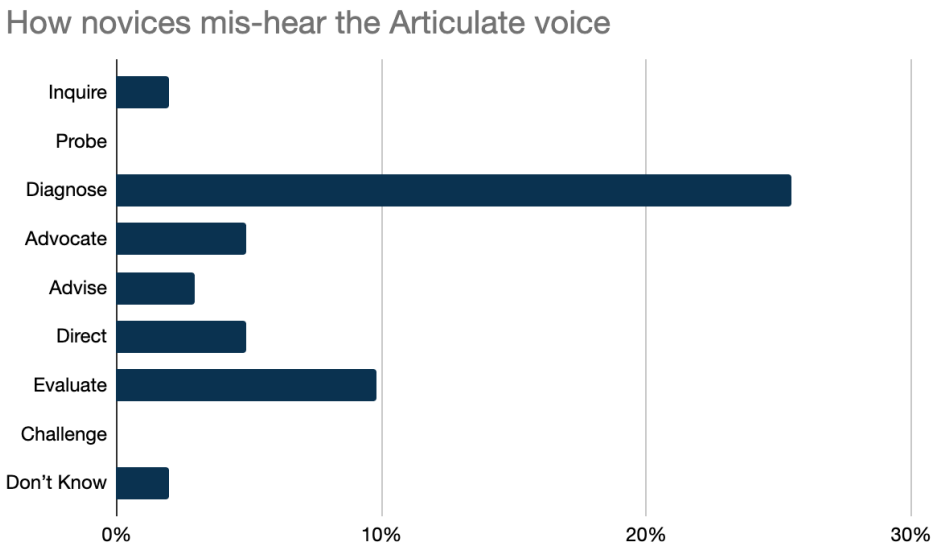

Figure 6: How novices mis-hear the Articulate voice

The untrained ear hears the **Advise** voice correctly only 75% of the time. What they hear instead when they mis-hear is most often the Advocate voice.

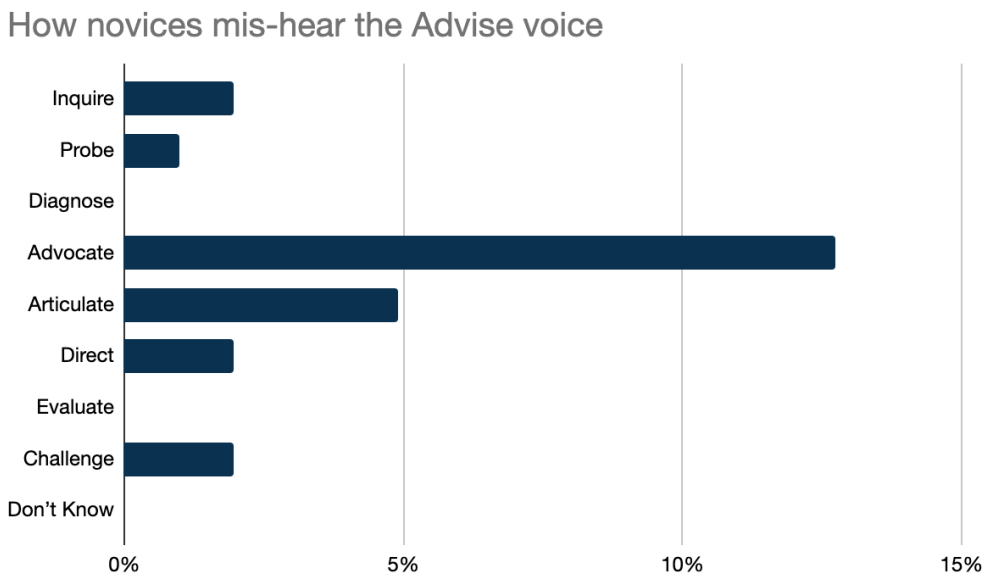

Figure 7: How novices mis-hear the Advise voice

The Controlling Voices

The untrained ear hears the **Direct** voice correctly 64% of the time. What they hear instead when they mis-hear is most often either the Articulate, Advise, or Challenge voice.

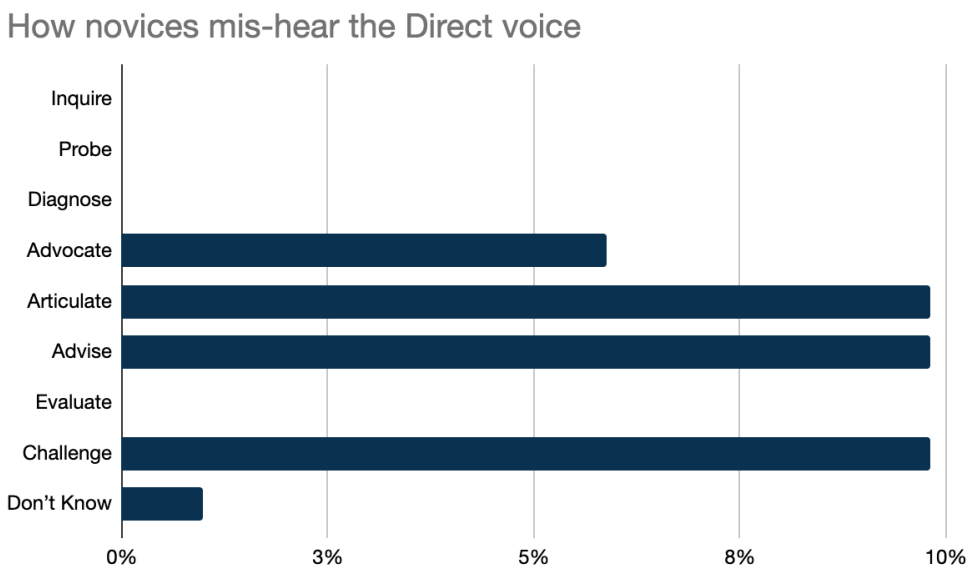

Figure 8: How novices mis-hear the Direct voice

The untrained ear hears the **Evaluate** voice correctly 57% of the time. What they hear instead when they mis-hear is most often the Diagnose voice.

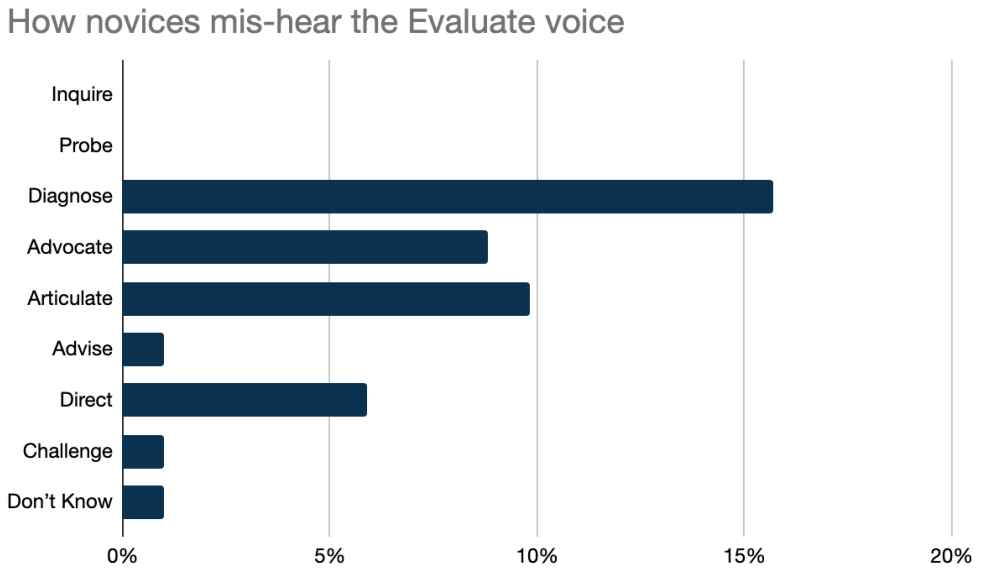

Figure 9: How novices mis-hear the Evaluate voice

The untrained ear hears the **Challenge** voice correctly only 56% of the time. What they hear instead when they mis-hear is most often the Direct voice.

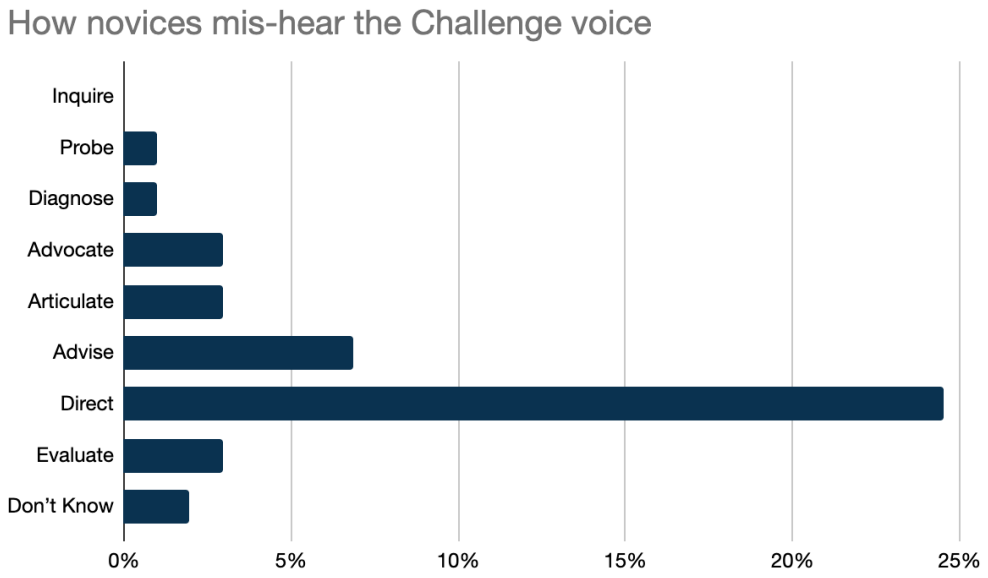

Figure 10: How novices mis-hear the Challenge voice