



How KnowBrainer Tests Microphones and Soundcards

Depending on what microphone we are testing, we work with up to 20 different testers and utilize a combination of in-house and independent testers.

Phase 1: Testing is conducted with a well-trained user profile to see if continued testing is warranted. Some microphones do so poorly that they never go beyond Phase 1 testing. Our most recent failure was the Sennheiser PC 21 headset which we found to be slightly uncomfortable and turned in an accuracy score of 96%. Except for highly specialized microphones, our accuracy cut-off point is 97%. We also have to take SRP into account. The Sennheiser PC 21 made it to Phase 2 testing because it only retailed for \$30. Although the PC 21 didn't quite make our recommendation list, for \$30, it would still make a good starter microphone and we may revisit it in the future.

Phase 2: Testing is comprised of a new pristine user profile that is never saved. We test for accuracy, noise cancellation and comfort but our tests are always conducted by reading pre-fab text which is equivalent to “testing in a vacuum”. Whenever you read text into NaturallySpeaking, it's going to be notably more accurate because free-form dictation tends to be choppy. After reading the same text three times, we replace the text because each time you read the same text into NaturallySpeaking it will become more accurate (without correcting) because you start to memorize the text and your voice gets even smoother. Each training text is 300 words and we perform 3 separate tests for a total of 9 readings. Although this is a rough estimate, we recommend deleting 2 full percentage points from our accuracy scores for a reality check (typical free-form dictation). Although we average the scores between all testers, a microphone that does very well for one person may not do so well for another. Before releasing our results, we additionally go through Phase 3 testing which is not a measured score.

Phase 3: Testing is designed to compensate for the placebo effect as we sometimes fall victim to shiny objects. Even though we have finished our review by the end of Phase 2, we simply can't trust our results until they undergo real-world testing

which means using the microphone for all our dictations for 2 weeks. It's amazing how many times we run into something that wasn't obvious in the first two tests or even the first few days. For example, we found the Nady Encore II had a tendency to leak audio into NaturallySpeaking which resulted in NaturallySpeaking refusing to acknowledge our dictation for about 10 seconds after turning the microphone back on. Sometimes it's the little things that you don't notice until you seriously commit to using a microphone. In addition, sometimes a system that seems perfectly comfortable during early testing turns out to be uncomfortable in the long run.