可靠的，快捷且客观

一个快速且简单的10分钟标准语音评估协议 - 提供可靠的和客观的测量值，适用于全球范围内的语音评估任务。

必须拥有每一个诊所 - 无论你是一个语音专家，还是偶尔看到一个语音或帕金森病患者。节省在收集和分析数据方面的时间，并提供一个清晰的即时打印报告，包括进度跟踪和结果。

1. s/z比率和最大发声时间 (MPT)
   3分钟用于第1步: 标记s，z和MPT，获得与常规数据相比的即时结果，并以时间轴显示与其他客户的会话结果（用于预后评估分析）

   s/z比率是语音障碍的一个指标。它测量保持无声的语音音素's'的能力与保持有声的音素'z'的能力。95%有某些难以影响声带功能的人有一个s/z比大于1.40。

   最大发声时间 (MPT) 是一个有用的语音功能指标。它提供了一个简单估算声带效率的方法。MPT常用于监测进展 - lingWAVES VPR 可以实时为你做到这一点。

2. 追踪进度和结果 - 使几个预后语音评估在你的治疗过程中。lingWAVES VPR 显示所有客户的会话结果。

3. 使用实时音高和响度显示进行生物反馈，例如，如果你治疗帕金森患者。

4. 它不依赖于你使用的录音硬件和声卡 - lingWAVES VPR 含有一个认证的SPL仪表/麦克风和一个插拔式lingWAVES Connector USB，有自己的声卡。你可以比较来自不同计算机的结果 - 校准不是必需的。你只需要一台运行Windows 10的电脑（见系统要求）。

Step 1: s/z Ratio and Maximum Phonation Time (MPT)

3 minutes for step 1: Record and label s, z and MPT and get instant results compared with norm data and displayed on a time line with other client sessions (e.g. for pre-post assessment analysis)

The s/z ratio is an indicator of voice disorder. It measures the ability to sustain the voiceless sound ‘s’ in comparison to sustaining the voiced sound ‘z’. 95% of people who have some difficulty affecting the function of their vocal cords have an s/z ratio of greater than 1.40.

Maximum Phonation Time (MPT) is a useful measure of vocal function. It provides a simple test of glottic efficiency. MPT is useful as an indicator of laryngeal pathology and is frequently used to monitor progress - lingWAVES VPR does this instantly for you.

s/z ratio and MPT analysis with time line display.
Step 2: F0-Pitch Analysis
2 minutes for step 2: Record and label a 3 seconds sustained vowel and perform a glide from your lowest to highest pitch.
See instant data of jitter, shimmer and the new objective measurements related to perception - irregularity (roughness) and noise (breathiness), compared with norm data and displayed on a session time line.
NEW: lingWAVES introduces a new pitch glide analysis - voice quality as a function of fundamental frequency / pitch to show vocal fold regularity of movement and vocal fold closure.

PITCH, in speech how high or low a tone is perceived by the ear. This depends on the number of vibrations per second - fundamental frequency (F0) - produced by the vocal cords. Pitch is the main acoustic correlate of tone and intonation.

Step 3: Dysphonia Severity Index (DSI)
1 minute for step 3: All you need now for a DSI calculation is the client’s minimum loudness. Highest Frequency, MPT and Jitter are already measured before. Record a sustained vowel [a:] from normal to lowest loudness. The display shows a time line (pre-post) for measured data.

The vocal quality and degree of dysphonia of a client is modeled by means of a Dysphonia Severity Index (DSI), which is designed to establish an objective and quantitative correlate of the perceived vocal quality. DSI is based on a multidimensional approach and not only based on a single acoustic measurement (e.g. cepstral analysis, jitter, ...) and therefore more close to perceptual evaluation.

Step 4: Spoken Text Analysis
3 minutes for step 4: Record a standard text (Rainbow Passage) which is shown on the screen during recording of your client. Pitch and loudness data are displayed instantly after reading completion.

NEW: Frequency and absolute loudness (dB) data are displayed in a frequency / loudness graph, comparable with a VRP (Voice Range Profile). This graph provides a better and easier to understand overview.

VPR spoken text analysis is a voice analysis of continuous speech with fundamental frequency and absolute loudness measurements. It gives information about the mean fundamental frequency / SPL loudness as well as pitch range and loudness dynamic.

Step 4+ extra Benefit: Real Time Pitch and Loudness
Real time display: F0-Pitch and loudness (SPL) for objective measurement in your own preferred assessments or for visual biofeedback in treatment sessions such as Parkinsons client biofeedback. It provides a visual biofeedback of loudness and pitch characteristics of a patient’s voice / speech and can also display a target loudness level to enhance a patient’s self-perception and motivation.

Intonation, stress, timing patterns as well as target pitch and absolute loudness values during running speech can be seen as they are said by the client.

Perfect if you use CAPE-V
The CAPE-V indicates salient perceptual vocal attributes, identified by the core consensus group as commonly used and easily understood. The attributes are: (a) Overall Severity; (b) Roughness; (c) Breathiness; (d) Strain; (e) Pitch; and (f) Loudness.

lingWAVES Voice Protocol provides 4 of 6 objective measured CAPE-V data.

The Consensus Auditory-Perceptual Evaluation of Voice (CAPE-V) was developed as a tool for clinical auditory-perceptual assessment of voice. Its primary purpose is to describe the severity of auditory-perceptual attributes of a voice problem, in a way that can be communicated among clinicians. Its secondary purpose is to contribute to hypotheses regarding the anatomic and physiological bases of voice problems and to evaluate the need for additional testing.

Sets with Voice Protocol
lingWAVES VPR can be purchased as a suite with voice recording, spectrography and VDI / VHI-12 module. It is also included in the lingWAVES Voice Clinic Suite Pro. Upgrades to other lingWAVES modules like Nasality, Voice Range Profile, MSDA, TheraVox, EGG ... are possible using the same application and client management.

System Requirements (2020-09)
OS: Windows 10, Hardware: PC or notebook, min. i5, i7, min. 8 GB RAM, loudspeaker, 1 x USB (lingWAVES Connector USB), no sound card required - no more trouble with poor quality sound cards and microphones. Frequent updates and international customer-friendly support.

More information: www.wevosys.com