

Appendix 1: Search strategy

The following search concepts and terms will be adapted to suit each of electronic database, with limits of year 1930 to present day and English language.

The search strategy will include 'vocal tasks' AND 'assessment' AND 'voice problem'

CONCEPT AREA	RELATED SEARCH TERMS
Vocal tasks	<ul style="list-style-type: none"> – voice task* – vocal task* – phonat* – sustained vowel* – prolonged vowel* – reading passage* – rainbow passage* – grandfather passage* – zoo passage* – consensus auditory perceptual evaluation – CAPE-V sentence* – CAPE-V phrase* – continuous speech – counting number* – loudness (OR volume OR amplitude OR intensity) range – dynamic range – pitch range – pitch glide – plosive fricative nasal – sing (OR song OR sung) – singing scale*OR musical scale* – diadochokinetic rate* – alternative motion rate OR sequential motion rate
Assessment	<ul style="list-style-type: none"> – voice assessment (OR evaluation OR analysis OR measure*) – instrumental OR objective – subjective – acoustic assessment (evaluation OR analysis OR measure*) – auditory perceptual – time domain* – frequency domain* – fundamental frequency – perturbation – glottal noise – harmonic – fundamental

	<ul style="list-style-type: none"> – voice spectrum – spectral tilt – spectral slope* – formant – energy ratio* – cepstrum – non-linear voice acoustic – voice acoustic index – linear prediction* – acoustic prediction* – voice discrimination* – voice discriminant analys* – grade – roughness – breathiness – quality – strain – asthenia
Voice disorders	<ul style="list-style-type: none"> – voice disorder* – voice problem* – voice pathology – pathological voice – aphonia – dysphonia – hoarseness

Appendix 2: Data extraction templates

Data extraction template for studies identified from electronic databases	
Study details and study characteristics	
Citation details: (Authors, publication year, journal name, volume, pages)	
Country where study was carried out,	
Study design	
Participant details (Age, gender distribution, setting, diagnosis)	
Details extracted from the study	
Acoustic analysis instrument/software (Name, specifications)	
Auditory-perceptual evaluation procedure (Rating scale)	

Task (Instructions, type – habitual/performance-based)	
References for the tasks	
Recording protocol (Name, standardized/non-standardized, any other specifications)	
Dimensions of voice being assessed (Quality, intensity, frequency, time, consistency, endurance)	
Measures/parameters being measured	
Information on accuracy, sensitivity, and specificity	
Key findings relevant to the review	
Data extraction template for guidelines and recommendations of professional organizations	
Details related to website (Name of organization, type of organization (SLP/ENT), website URL, contact details)	
Voice assessment information (Available or not available, if available – voice assessment protocol recommended)	
Acoustic analysis details (instrument/software specifications, tasks, recording protocol, acoustic measures/parameters being measured,	
Auditory-perceptual evaluation procedure (rating scale, tasks, parameters)	
Any other relevant information	
Data extraction template for textbooks	
Details related to textbook (Name, author, edition, publishers, chapter name, authors for the chapter)	
Voice assessment information (Available or not available, if available – voice assessment protocol discussed)	
Acoustic analysis details (instrument/software specifications, tasks, recording protocol, acoustic measures/parameters being measured)	
Auditory-perceptual evaluation procedure (rating scale, tasks, parameters)	
Any other relevant information	