

Supplemental Material S1. The inclusion and exclusion criteria based on the Population, Intervention, Control, Outcomes, and Study Design (PICOS) strategy.

Population	Inclusion	<ul style="list-style-type: none"> Adults (≥ 18 years of age) Post lingual bilateral sensorineural hearing loss Age-appropriate cognitive function
	Exclusion	<ul style="list-style-type: none"> Conductive component (ABG > 10 dB, or an abnormal acoustic immitance finding) Laboratory simulation of hearing loss Hearing status not clearly defined
Intervention	Inclusion	<ul style="list-style-type: none"> Binaural digital hearing aid use Specific adjustments of digital signal processing features in a binaural amplification
	Exclusion	<ul style="list-style-type: none"> CIs, BAHAs, (bi)CROS, bimodal amplification, unilateral amplification, or laboratory simulation of hearing aid use
Control	Inclusion	<ul style="list-style-type: none"> Between subject comparison Within subject comparison (subjects are their own control; comparison before and after intervention)
Outcomes	Inclusion	<ul style="list-style-type: none"> Measures of the global cognitive function Measures of specific cognitive resources e.g., working memory, and etcetera Measures of the aided benefit in terms of listening effort Measures of the aided benefit in terms of speech understanding
Study Design	Inclusion	<ul style="list-style-type: none"> (Quasi-)experimental studies English written articles
	Exclusion	<ul style="list-style-type: none"> Case reports, systematic reviews, meta-analyses, narrative reviews, editorial letters, clinical protocols, and meeting abstracts
ABG = air-bone gap; BAHA = bone anchored hearing aid; CI = cochlear implant; (bi-)CROS = (bilateral) contralateral routing of signal		