

**Supplementary Table 1.** Full electronic search strategies of the cochlear implant group for all database used in the study

Database	Keywords								
PubMed, Scopus	“Music Training” OR “Music therapy” OR “Acoustic Stimulation” OR “Auditory Training” OR “Auditory Rehabilitation” OR “Auditory stimulation” OR “Musical Stimulation”	AN D	“music component” OR “rhythm” OR “timbre” OR “harmony” OR “pitch”	AN D	“Speech perception” OR “Music perception” OR “Speech intelligibility” OR “Pitch perception” OR “Pitch discrimination” OR “Rhythm perception” OR “Timbre perception”	AN D	“Training time” OR “Training duration” OR “Training content” OR “Musical exposure” OR OR “Music Content”	A N D	“children” OR “pre-lingual deafness” OR “pediatric”
	“Auditory Training” OR “Auditory Rehabilitation” OR “Music therapy”	AN D	“rhythm” OR “beat” OR “timbre” OR “harmony” OR “pitch”	AN D	“Pitch perception” OR “Pitch discrimination” OR “Rhythm perception” OR “Timbre perception”	AN D	“Training time” OR “Training duration” OR “Training content” OR “Musical exposure” OR OR “Music Content”	A N D	“children” OR “pre-lingual deafness” OR “pediatric”
Web of Science and CINAHL	“Music Training” OR “Acoustic Stimulation” OR “Auditory stimulation” OR “Musical Stimulation”	AN D	“music component”	AN D	“Speech perception” OR “Music perception” OR “Speech intelligibility”		“Training time” OR “Training duration” OR “Training content” OR “Musical exposure” OR OR “Music Content”	A N D	“children” OR “pre-lingual deafness” OR “pediatric”
ScienceDirect,	“Music Training” OR “Music therapy” OR Auditory Training”	AN D	“music component”	AN D	“Auditory perception” OR “Music perception” OR “Speech intelligibility” OR “Loudness perception” OR Speech improvement” OR OR Music perception” OR Loudness perception” OR “Pitch perception”	AN D	“Training duration” OR “Training content”	A N D	“children” OR “pre-lingual deafness” OR “pediatric”
	Acoustic Stimulation” OR Music therapy” OR “Musical Stimulation”	AN D	“rhythm” OR “timbre” OR “harmony” OR “pitch” OR	AN D	Speech improvement” OR OR Music perception” OR Loudness perception” OR “Pitch perception”	AN D	Training content” OR “Musical exposure” OR “Music Content”	A N D	“children” OR “pre-lingual deafness” OR “pediatric”