Supplemental Material S1. Search syntax and Boolean operators for databases.

Description of search syntax: The search syntax identifies studies according to the inclusionary criteria (described in Method section). This is achieved by searching for keywords in titles and abstracts.

Search strategy for Psychinfo and Eric

((Specific language impairment or Specific Language Disorder or Speech disorder or Communication disorder or Communication delay or Communication impairment or Developmental language delay or Developmental language disorder or Developmental language impairment or Expressive language disorder or Language delay or Language disorder or Language impairment or mixed language disorder or receptive language disorder or Language-based learning disabilit* or Language Based Learning Disabilit* or Language disabled or Specific learning disorder or Learning disabilit*) and (Non-declarative learn* or Non declarative learn* or Nondeclarative learning or Procedural learn* or Implicit learn* or Procedural memory or Artificial grammar learn* or Artificial Grammar or Artificial language or Artificial synta* or Sequence learning or Sequenc* learn* or Statistical learn* or Probabilistic learn* or Non adjacent dependency learning or non adjacent dependencies or nonadjacent dependency learning or nonadjacent dependencies or adjacent dependency learn* or adjacent dependencies)).a

Search strategy for Pubmed

(("Specific language impairment"[Title/Abstract] OR "Specific Language Disorder"[Title/Abstract] OR "Speech disorder"[Title/Abstract] OR "Communication disorder"[Title/Abstract] OR "Communication delay"[Title/Abstract] OR "Communication impairment"[Title/Abstract] OR "Developmental language delay"[Title/Abstract] OR "Developmental language disorder"[Title/Abstract] OR "Developmental language impairment"[Title/Abstract] OR "Expressive language disorder"[Title/Abstract] OR "Language delay"[Title/Abstract] OR "Language disorder"[Title/Abstract] OR "Language impairment"[Title/Abstract] OR "mixed language disorder"[Title/Abstract] OR "receptive language disorder"[Title/Abstract] OR "Language-based learning disabilit*"[Title/Abstract] OR "Language Based Learning Disabilit*"[Title/Abstract] OR "Language disabled"[Title/Abstract] OR "Specific learning disorder"[Title/Abstract] OR "Learning disabilit*"[Title/Abstract])) AND ("Non-declarative learn*"[Title/Abstract] OR "Non declarative learn*"[Title/Abstract] OR "Nondeclarative learning"[Title/Abstract] OR "Procedural learn*"[Title/Abstract] OR "Implicit learn*"[Title/Abstract] OR "Procedural memory"[Title/Abstract] OR "Artificial grammar learn*"[Title/Abstract] OR "Artificial Grammar"[Title/Abstract] OR "Artificial language"[Title/Abstract] OR "Artificial synta*"[Title/Abstract] OR "Sequence learning"[Title/Abstract] OR "Sequenc* learn*"[Title/Abstract] OR "Statistical learn*"[Title/Abstract] OR "Probabilistic learn*"[Title/Abstract] OR "Non adjacent dependency learning"[Title/Abstract] OR "non adjacent dependencies"[Title/Abstract] OR "nonadjacent dependency learning"[Title/Abstract] OR "nonadjacent dependencies"[Title/Abstract] OR "adjacent dependency learn*"[Title/Abstract] OR "adjacent dependencies"[Title/Abstract])

Search strategy for Language Behavioural abstracts (LLB)

ab(Specific language impairment OR Specific Language Disorder OR Speech disorder OR Communication disorder OR Communication delay OR Communication impairment OR Developmental language delay OR Developmental language disorder OR Developmental language impairment OR Expressive language disorder OR Language delay OR Language disorder OR Language impairment OR mixed language disorder OR receptive language disorder OR Language-based learning disability OR Language Based Learning Disability OR Language disabled OR Specific learning disorder OR Learning disability) AND ab(Non-declarative learning OR Non declarative learning OR Procedural learning OR Implicit learning OR Procedural memory OR Artificial grammar learning OR Artificial Grammar OR Artificial language OR Artificial syntax OR Sequence learning OR Sequenced learning OR Statistical learning OR Probabilistic learning OR Non adjacent dependency learning OR non adjacent dependencies OR nonadjacent dependency learning OR nonadjacent dependencies OR adjacent dependency learn* OR adjacent dependencies)

Search strategy for Open Access Thesis and Dissertations (OATD)

abstract:(("Non-declarative learning" OR "Non declarative learning" OR "Procedural learning" OR "Implicit learning" OR "Procedural memory" OR "Artificial grammar learning" OR "Artificial Grammar" OR "Artificial language" OR "Artificial syntax" OR "Sequence learning" OR "Sequenced learning" OR "Statistical learning" OR "Probabilistic learning" OR "Non adjacent dependency learning" OR "non adjacent dependencies" OR "nonadjacent dependency learning" OR "nonadjacent dependencies" OR "adjacent dependency learning" OR "adjacent dependencies") AND abstract:("Specific language impairment" OR "Specific Language Disorder" OR "Speech disorder" OR "Communication disorder" OR "Communication delay" OR "Communication impairment" OR "Developmental language delay" OR "Developmental language disorder" OR "Developmental language impairment" OR "Expressive language disorder" OR "Language delay" OR "Language disorder" OR "Language impairment" OR "mixed

language disorder" OR "receptive language disorder" OR "Language-based learning disability" OR
"Language Based Learning Disability" OR "Language disabled" OR "Specific learning disorder" OR
"Learning disability"))