

The impact of age and phonemic awareness on the auditory steady state response (ASSR) in children and young adults

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I want to present the (preliminary) results of my master thesis. In my master thesis I want to analyze the individual gamma frequency of 30 children and young adults (at the moment I was able to examine 22). I presented 1000 Hz sinusoidal tones which were amplitude modulated with 30-70 Hz to estimate the individual gamma frequency, so the ASSR with the highest power. Furthermore I tested their phonemic awareness with the PHOG - phonematischer Gedächtnistest. I expect a positive correlation between age and individuell gamma frequency (in line with the results published by Poulson, Picton & Paus, 2009, Developmental science) as well as a positive correlation between the phonemic awareness since the individual gamma frequency seems to be important for auditory gap detection (Baltus & Herrmann, 2015, International Journal of Psychophysiology) and is associated with developmental dyslexia symptoms (Lehongre, Ramus, Villiermet, Schwartz & Giraud, 2011, Neuron).