Author	**Design (Control Condition)**	**N**	**Mean age +/- SD (Age Range)**	**Form of Stimulation**	**Region of Stimulation**	**Target of intervention**	**Time**	**Major Findings**
Caldini et al. (2020)	2 groups randomly assigned blind groups with parent consent (Dyslexic with training; no training group) One -way ANOVA design.	25 per group N=50	7. 8 – 12 yrs.	Visual and Attention Cortices, cortical mechanisms	Oculomotor	Visual attention training to improve reading	Pre-test, 10-minute visual attentional training of oculomotor tasks (saccades, pursuit movements, searching tasks)	Children with oculomotor training read faster in the post test and their fixation time was shorter than in pre-test. Concluded that visual attention training partially mitigated immature cortical structures responsible for saccades triggering. There was a significant training effect on outcomes between the 2 groups.
Cancer et al., 2020	2 subgroups pseudo-randomly assigned (but group similar)	12 x 2	8-14 yrs M=9. 79 SD = 1. 64	vHHS + AVG; RRT (auditory stimulation)	Oculomotor, visuo-spatial attention, auditory processing	vHHS and AVG vs. Rhythmic Reading Training. Intervention: sublexical treatment with rhythm processing and speed	2x 45 min/day for 9 days over a 3-week period.	RRT improved pseudoword reading and speed associated with phonological awareness; vHSS and AVG more effective in increasing general reading accuracy with is associated with rapid automatized naming. AVG improved speed.

						combined visual cue.		
Cancer et al. 2021	2 groups; stratified sampling by matching age, sex, TIQ, reading baseline. (1 in-person, 1 virtual)	15 x 2	8-13 M=9. 8 SD= 1. 31	Visual and auditory stimulation; speed increased once 90% accuracy	Visual and auditory processing systems	Auditory processing, visual cortex	10 biweekly x 45 mins. (Total 7. 5 hours)	Used a mixed factorial ANOVA 2x2 analysis. Rhythmic Reading Training was equally effective in-person and virtually (η^2 = 0. 02). Improved reading and rapid automatized naming. Visuo-spatial and attentional stimulations found significant effect on pseudo-word reading speed. Limitation lack of follow-up measures.
Cancer et al. (2022)	3 groups a) RRT + vHHS b) RRT c) control. Used one-way and multifactorial ANOVA	58	8-14 yrs. M=10. 8 SD= 1. 64	Rhythmic Reading Training; RRT + visual cue	Auditory temporal processing; visual attentional processing	Multisensory integration and cross-modal learning	10 x 45 minutes over 5 weeks	Significant immediate and medium term (3 months post intervention) effect using Rhythmic Reading Training. Pre and post measures looking at reading accuracy and fluency. Improvements of RAN, phonological, rhythmic and attentional abilities. No impact when combined with visual cueing.
Franceschini & Bertoni (2019)	Convenience sample. No control. No blind.	18	HL 8. 9-13. 2 9. 79 SD 1. 33; LL	AVG	Visual and auditory processing systems	Multi-sensory attentional network (magnocellular-dorsal pathway)	12 x 60 mins. Within 2 weeks	Those participants that improved their scores the most in games (High Learners/ HL) had better reading improvement from pre and post

			9. 42 SD 1. 19					assessments than Low Learners (LL). Visual attention training showed improved in reading intervention programs. HL showed 1 year's spontaneous reading speed development (12 hours of intervention and no increase of error rate).
Helland et al. (2018)	Convenience sample, plus 2 controls – one with training, one without. One way ANOVA design.	47 (15 control training; 16 control no training; 16 Dyslexic)	8 yrs. CnT m= 8. 22 (SD .32) CT = 8. 23 (SD= .24) DT 8. 78 (SD= .26)	Auditory stimulation Dichotic listening taps	Auditory processing systems	Attentional network-interstimulus interval 4 ms	Trainin g 1x 5 consec utive days; post-test 1 week later.	Dichotic listening results varied across 3 groups. Control no training (CnT)had little change. Changes in all measures for control training (CT) and some for Dyslexia Training (DT). Weaker attention scores for DT but improved RAN and DS scores not explained by test-re-test effect. 10 of 16 subjects showed improvement in attention shifting index (ASI). Study also confirmed that language processing skills and verbal working memory skills are related to focus and the ability to shift attention.
Koen et al. (2018)	Mixed design with intervention and delay	15	14 +/-2 (8-19)	vHSS	Left superior temporal gyrus, IFG,	Visual field stimulation	50 x 27 min	Determining L-type or P-type or mixed DD changed area of stimulation. 67%

	intervention groups (no sham) Convenience Sample				LH IOT (VWFA)			achieved automatic processing and increased reading rate 20 words/minute
Lorusso et al. 2021	Mixed design, 6 groups, no shams. Repeated-measures ANOVA analysis.	91 (54 male)	7-14 M=9. 44, SD 1. 41 Group 1 n= 27; <9years; Group 2 n=42 ages 9 & 10; Group 3, n= 22; 11 years+	AVG/vHSS	One visual hemisphere (based on Dyslexic type); contralateral stimulation; central lateralized stimulation and inter-hemispheric integration	peripheral processing and global perception of stimuli moving at high speed and that are spatial-temporally unpredictable	4 weeks (4-5 x a week for 20 – 30 mins.) Total of 14 hours	Based on Bakker's Balance Model, the Tachidino program (visual tachistoscopically presented words/nonwords with auditory stimuli) was found to have positive impact overall on reading speed, reading accuracy and writing ability. Children with most severe impairment had the strong improvement overall. Youngest participants showed greater improvement and was maintained in writing accuracy gains. ANOVA, power of 0.8 (acceptable).
Peters, Crewther, Murphy & Bavin (2021)	AVG-regular, AVG - enhanced, control (double blind, with control)	64	8-13 M= 10. 37 +/_	vHSS	Visuo-temporal processing	Attentional focus and rapid attention processing	10 x 30 min	Using Action Video Games (AVG) improved rapid naming and visuo-temporal processing compared to control. Participants with low contrast magnocellular-temporal processing improved most.

Van der Lubbe, Kleine & Rataj (2019)	Single blind with control; MANOVA design	26, 12 DD, 14 control	16 – 24 (20. 4 years for control, 23. 3 yrs. for DD)	vHSS	LPS and HPS on LH and RL. Passive Ag/AgCl ring electrodes 10-20 system at 61 locations. hEOG and vEOG measured on left and right eyes	Reaction times (RT) recorded in Spatial Frequency (LSF or HSF) on stimulus sides and response sides (Left or right)	1 hour	Results showed at end of cue-target interval no clear contralateral reduction of attention in upper alpha band. Noted slower responses than control especially in high spatial frequency targets in left VF. Dyslexics difficulty and sustaining attention. Dyslexic students better at Balloon tasks without controls. No difference found between executive functions, visual perception, and vigilance. Dyslexics student had faster responses for Low Spatial Frequency than HSF
Werth (2021)	Convenience sample. Control group of typical readers and control group of reading without computer aided pace.	60 + controls	8-15 m=10. 2 years; SD +/-1. 6	vHSS	L TPC, visual processing cortex	Diagnostic established 95% reading accuracy level for pseudowords. Child looked at affixation mark before each word. The complexity of the pseudowords was lessened with more time	30-minute training, then computer altered the program to match child's needs30 mins.	Computer aided readings (pacing the amount of time the eye should spend on a 2 or 3 letter word segment in a pseudoword) showed drop of 69. 97% of reading mistakes. Cohen d=2. 649. No evidence that dyslexia was due to lack of eye movement control or reduced visual attention. Typical readers had increased errors when only able to

		to view the word to find the teaching level for the child.	see the words in segments.