Table S1. Summary of studies

Authors	Noise	Conditions	Age	Level	Function	N	d	SE_d	Observations	Country
Baek et.al (2023) (I)	Aircraft noise	Control vs. High Exposure	10–11	Elementary	Reasoning score	989	-0.17	0.032	Small differences in reasoning score between high exposure and control groups	Korea
Baek et.al (2023) (II)		Control vs. Medium Exposure	10–11	Elementary	Reasoning score	989	-0.01	0.032	Small differences in reasoning score between medium exposure and control groups	Korea
Baek et.al (2023) (III)		Control vs. High Exposure	10–11	Elementary	Vocabulary score	989	-0.18	0.032	Small difference in vocabulary score between high exposure and control groups	Korea
Baek et.al (2023) (IX)		Control vs. High Exposure	10–11	Elementary	IQ	989	-0.19	0.032	Small difference in IQ between high exposure and control groups	Korea
Baek et.al (2023) (V)		Control vs. High Exposure	10–11	Elementary	Numeracy score	989	-0.15	0.032	Small difference in numeracy score between high exposure and control groups	Korea
Baek et.al (2023) (VII)		Control vs. High Exposure	10–11	Elementary	Perception score	989	-3.01	0.032	Extremely large effect size indicating significant difference in perception score between high exposure and control groups	Korea
Baek et.al (2023) (VIII)		Control vs. Medium Exposure	10–11	Elementary	Perception score	989	0.03	0.032	No significant difference in perception score between medium exposure and control groups	Korea
Baek et.al (2023) (X)		Control vs. Medium Exposure	10–11	Elementary	IQ	989	0.006	0.032	No significant difference in IQ between medium exposure and control groups	Korea
Bhang et al. (2018) (I)	Environmental noise: road traffic and aircraft noise	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Arithmetic	268	-0.35	0.061	p=0.006	Korea
Bhang et al. (2018) (II)		Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Vocabulary	268	-0.38	0.061	p=0.002	Korea
Bhang et al. (2018) (III)		Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Block design	268	-0.12	0.061	p=0.346	Korea
Bhang et al. (2018) (IV)		Background noise: 43.5–46.1 dB Additional noise:	10-12	Elementary	Picture arrangement	268	-0.44	0.061	p=0.001	Korea

	60.8–62.8 dB (road traffic and aircraft noise)								
Bhang et al. (2018) (IX)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Response time-SD (Visual Selective Attention)	268	-0.108	0.061	p=0.381	Korea
Bhang et al. (2018) (V)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Full-scale IQ	268	-0.47	0.061	<0.001	Korea
Bhang et al. (2018) (VI)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Commission error (Visual Selective Attention)	268	0.062	0.061	p=0.617	Korea
Bhang et al. (2018) (VII)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Omission error (Visual Selective Attention)	268	-0.109	0.061	p=0.375	Korea
Bhang et al. (2018) (VIII)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Response time (sec) (Visual Selective Attention)	268	-0.104	0.061	p=0.400	Korea
Bhang et al. (2018) (X)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Commission error (Divided Attention)	268	-0.13	0.061	p=0.279	Korea
Bhang et al. (2018) (XI)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Omission error (Divided Attention)	268	-0.26	0.061	p=0.034	Korea
Bhang et al. (2018) (XII)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Response time (sec) (Divided Attention)	268	-0.25	0.061	p=0.047	Korea
Bhang et al. (2018) (XIII)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Response time-SD (Divided Attention)	268	-0.03	0.061	p=0.794	Korea
Bhang et al. (2018) (XIV)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Forward memory span (Spatial Working Memory)	268	-0.25	0.061	p=0.045	Korea
Bhang et al. (2018) (XIX)	Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Color score (Stroop Effect)	268	-0.04	0.061	p=0.779	Korea

Bhang et al. (2018) (XV)		Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Forward correct response (Spatial Working Memory)	268	-0.29	0.061	p=0.020	Korea
Bhang et al. (2018) (XVI)		Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Backward memory span (Spatial Working Memory)	268	-0.15	0.061	p=0.229	Korea
Bhang et al. (2018) (XVII)		Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Backward correct response (Spatial Working Memory)	268	-0.17	0.061	p=0.176	Korea
Bhang et al. (2018) (XVIII)		Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Word score (Stroop Effect)	268	-0.24	0.061	p=0.056	Korea
Bhang et al. (2018) (XX)		Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Color-word score (Stroop Effect)	268	-0.01	0.061	p=0.921	Korea
Bhang et al. (2018) (XXI)		Background noise: 43.5–46.1 dB Additional noise: 60.8–62.8 dB (road traffic and aircraft noise)	10-12	Elementary	Interference score (Stroop Effect)	268	0.02	0.061	p=0.851	Korea
Brill & Wang (2021) (I)	Classroom background noise	LAeqN (M= 49.3 dBA).	Grades 3, 5, 8, and 11	Mixed	Math achievement scores	220 schools	-0.171	0.135	Higher LAeqN levels correlate to lower math scores; regression coefficient for LAeqN = -0.87, SE = 0.35, $p < 0.05$	USA (Iowa, Nebraska)
Brill & Wang (2021) (II)		LAeqN (M= 49.3 dBA).	Grades 3, 5, 8, and 11	Mixed	Reading achievement scores	220 schools	-0.055	0.135	Small negative impact of LAeqN on reading scores, effect size is marginal	USA (Iowa, Nebraska)
Caviola et al.(2023) (I)	Classroom noise	Silent condition: 41.9 dB(A) Traffic noise Condition: 60.4 dB(A) Classroom noise Condition: 60.3 dB(A)	11-13	Elementary	Calculation performance	182	-0.19	0.075	Silence Condition vs Classroom noise (Easier Problems)	Italy
Chere & Kirkham (2021) (I)	Environmental noise	Environmental noise vs white noise	11-14	Secondary	Cognitive flexibility (WCST)	129	-0.60	0.089	More errors in environmental noise	UK
Chere & Kirkham (2021) (II)		Environmental noise vs white noise	11-14	Secondary	General executive control	129	-0.54	0.086	More errors in environmental noise	UK
Chere & Kirkham (2021) (III)		Environmental noise vs white noise	11-14	Secondary	Selective attention (Flanker)	129	-0.62	0.091	More errors in environmental noise	UK
Chere & Kirkham (2021) (IV)		Environmental noise vs white noise	15-18	Secondary	Cognitive flexibility (WCST)	129	-0.21	0.093	Fewer errors in environmental noise	UK

Chere & Kirkham (2021) (V)		Environmental noise vs white noise	15-18	Secondary	General executive control	129	-0.28	0.096	Fewer errors in environmental noise	UK
Chere & Kirkham (2021) (VI)		Environmental noise vs white noise	15-18	Secondary	Selective attention (Flanker)	129	-0.26	0.095	Fewer errors in environmental noise	UK
Connolly et al. (2019) (I)	Environmental noise	50 dB LAeq vs. 70 dB LAeq	11-16	Secondary	Reading Comprehension	976	-0.29	0.032	Main effect of noise level	UK
Connolly et al. (2019) (II)		50 dB LAeq vs. 70 dB LAeq	11-13	Secondary	Reading Comprehension	564	-0.20	0.043	Noise and age interaction, d for 11-13 years	UK
Connolly et al. (2019) (IIi)		50 dB LAeq vs. 70 dB LAeq	14-16	Secondary	Reading Comprehension	412	-0.20	0.049	Noise and age interaction, d for 14-16 years	UK
Dockrell & Shield (2012) (I)	Sound-field systems	Classroom (RT: 0.38s - 0.9s)	06-12	Elementary	Listening comprehension	186	-0.15	0.073	Small improvement	England (UK)
Dockrell & Shield (2012) (II)		Classroom (RT: 0.38s - 0.9s)	06-12	Elementary	Nonverbal processing	186	-0.57	0.073	Moderate improvement	England (UK)
Dockrell & Shield (2012) (III)		Classroom (RT: 0.38s - 0.9s)	06-12	Elementary	Reading	186	-0.37	0.073	Small improvement	England (UK)
Dockrell & Shield (2012) (IV)		Classroom (RT: 0.38s - 0.9s)	06-12	Elementary	Spelling	186	-0.50	0.073	Moderate improvement	England (UK)
Dockrell & Shield (2012) (V)		Classroom (RT: 0.38s - 0.9s)	06-12	Elementary	Numeracy	186	-0.36	0.073	Small improvement	England (UK)
Duarte da Cruz et al. (2016) (I)	Classroom noise level: 55-85 dB(A), RT: 0.8 s. SNR without FM: Front: 3.8 dBA, Middle: 0.5 dBA, Bottom: -0.6 dBA; SNR with FM: Front: 9.8 dBA, Middle: 5.5 dBA, Bottom: 2.3 dBA	First Evaluation: Control vs. Experimental	8	Elementary	Writing (name and dictation)	20	-0.26	0.229	Small effect favoring the experimental group initially	Brazil
Duarte da Cruz et al. (2016) (II)		First Evaluation: Control vs. Experimental	8	Elementary	Writing (name and dictation)	20	0.13	0.229	Slight favor towards control group, no significant.	Brazil
Duarte da Cruz et al. (2016) (III)		First Evaluation: Control vs. Experimental	8	Elementary	Arithmetic (problem-solving and calculations)	20	-0.40	0.229	Moderate effect favoring experimental group.	Brazil
Duarte da Cruz et al. (2016) (IV)		First Evaluation: Control vs. Experimental	8	Elementary	Arithmetic (problem-solving and calculations)	20	-0.65	0.229	Increased moderate effect favoring experimental group.	Brazil
Duarte da Cruz et al. (2016) (IX)		First Evaluation: Control vs. Experimental	8	Elementary	Oral Reading	20	-0.28	0.229	Small effect favoring experimental group.	Brazil
Duarte da Cruz et al. (2016) (V)		First Evaluation: Control vs. Experimental	8	Elementary	Reading	20	-0.17	0.229	Small effect favoring experimental group.	Brazil
Duarte da Cruz et al. (2016) (VI)		Second Evaluation: Control vs. Experimental	8	Elementary	Reading	20	0.08	0.229	No significant difference.	Brazil
Duarte da Cruz et al. (2016) (VII)		First Evaluation: Control vs. Experimental	8	Elementary	Silent Reading	20	-0.64	0.229	Moderate effect favoring experimental group.	Brazil
Duarte da Cruz et al. (2016) (VIII)		Second Evaluation: Control vs. Experimental	8	Elementary	Silent Reading	20	-0.72	0.229	Increased moderate effect favoring experimental group.	Brazil
Duarte da Cruz et al. (2016) (X)		Second Evaluation: Control vs. Experimental	8	Elementary	Oral Reading	20	-0.30	0.229	Small effect favoring experimental group.	Brazil

Griffin et al. (2019) (I)	Classroom noise	Quiet: 55 dBA, +6 dB SNR: Signal 6 dB above	7-12	Elementary	Auditory Comprehension	35	-1.58	0.264	Better performance in +6 dB SNR condition compared to Quiet (92.2 vs 74.8)	USA
Haines et al. (2001) (I)	Aircraft noise	High noise (Leq > 66 dBA) vs. Low noise (Leq < 57 dBA)	08-11	Elementary	Reading comprehension	275	-0.26	0.063	Chronic exposure has a small negative effect on reading comprehension	UK
Haines et al. (2001) (II)		High noise (Leq > 66 dBA) vs. Low noise (Leq < 57 dBA)	08-11	Elementary	Sustained attention	275	-0.24	0.063	Chronic exposure has a small negative effect on sustained attention	UK
Leist et al. (2022) (II)	Classroom noise, Binaural	Silence vs. Binaural (LAeq = 63 dB, SNR -3dB)	6-8	Elementary	Speech Perception	37	-2.63	0.218	Large difference	Germany
Leist et al. (2022) (III)	Classroom noise, Monaural	Silence vs. Monaural (Laeq= 60 Db, SNR=-3)	6-8	Elementary	Listening Comprehension	37	-1.65	0.218	Moderate difference	Germany
Leist et al. (2022) (IV)	Classroom noise, Binaural	Silence vs. Binaural (LAeq = 63 dB, SNR -3dB)	6-8	Elementary	Listening Comprehension	37	-1.77	0.204	Moderate difference	Germany
Leist et al. (2022) (VI)	Classroom noise, Monaural	Silence vs. Monaural (Laeq= 60 Db, SNR=-3)	8-9	Elementary	Listening Comprehension	19	-0.86	0.200	Moderate difference	Germany
Leist et al. (2022) (VII)	Classroom noise, Binaural	Silence vs. Binaural (LAeq = 63 dB, SNR -3dB)	8-9	Elementary	Listening Comprehension	19	-0.91	0.200	Moderate difference	Germany
Ljung et al. (2009) (I)	Road traffic noise	Leq = 66 dBA, Background noise ~62 dBA, Peaks up to 78 dBA, Dominant frequency range: 100-300 Hz	12-13	Secondary	Reading comprehension	50	-0.16	0.142	Small effect, traffic noise slightly impairs reading comprehension	Sweden
Ljung et al. (2009) (II)	Irrelevant speech	Leq = 66 dBA, Background babble ~62 dBA, Dominant frequency range: 500-1500 Hz	12-13	Secondary	Reading comprehension	66	0.17	0.123	Small effect, irrelevant speech slightly improves reading comprehension	Sweden
Ljung et al. (2009) (III)	Road traffic noise	Leq = 66 dBA, Background noise ~62 dBA, Peaks up to 78 dBA, Dominant frequency range: 100-300 Hz	12-13	Secondary	Reading speed	50	-0.56	0.144	Moderate effect, traffic noise impairs reading speed	Sweden
Ljung et al. (2009) (IV)	Irrelevant speech	Leq = 66 dBA, Background babble ~62 dBA, Dominant frequency range: 500-1500 Hz	12-13	Secondary	Reading speed	66	-0.23	0.124	Small effect, irrelevant speech impairs reading speed	Sweden
Ljung et al. (2009) (V)	Road traffic noise	Leq = 66 dBA, Background noise ~62 dBA, Peaks up to 78 dBA, Dominant frequency range: 100-300 Hz	12-13	Secondary	Basic mathematics	50	-0.50	0.143	Moderate effect, traffic noise impairs basic mathematics	Sweden
Ljung et al. (2009) (VI)	Irrelevant speech	Leq = 66 dBA, Background babble ~62 dBA, Dominant frequency range: 500-1500 Hz	12-13	Secondary	Basic mathematics	66	0.05	0.123	Negligible effect, irrelevant speech has minimal impact on basic mathematics	Sweden

Ljung et al. (2009) (VII)	Road traffic noise	Leq = 66 dBA, Background noise ~62 dBA, Peaks up to 78 dBA, Dominant frequency range: 100-300 Hz	12-13	Secondary	Mathematical reasoning	50	0.04	0.143	Negligible effect, traffic noise has minimal impact on mathematical reasoning	Sweden
Ljung et al. (2009) (VIII)	Irrelevant speech	Leq = 66 dBA, Background babble ~62 dBA, Dominant frequency range: 500-1500 Hz	12-13	Secondary	Mathematical reasoning	66	0.08	0.123	Negligible effect, irrelevant speech has minimal impact on mathematical reasoning	Sweden
McCreery & Stelmachowicz (2013) (I)	Classroom noise	Full bandwidth, LP 5.6, LP 3.2	06-12	Elementary	Nonword Repetition Accuracy	17	-2.98	0.266	Significant reduction in accuracy with reduced bandwidth. .	USA
McCreery & Stelmachowicz (2013) (II)		9 dB, 3 dB	06-12	Elementary	Nonword Repetition Accuracy	17	-2.40	0.266	Higher accuracy at 9 dB SNR compared to 3 dB SNR.	USA
McCreery & Stelmachowicz (2013) (III)		Full bandwidth, LP 5.6, LP 3.2	06-12	Elementary	Verbal Processing Time	17	-0.56	0.266	Increased processing time with reduced bandwidth.	USA
McCreery & Stelmachowicz (2013) (IV)		9 dB, 3 dB	06-12	Elementary	Verbal Processing Time	17	-0.56	0.266	Faster processing time at 9 dB SNR compared to 3 dB SNR.	USA
McCreery & Stelmachowicz (2013) (V)		9 dB vs 3 dB, Full bandwidth, LP 5.6, LP 3.2	06-12	Elementary	Word Recall Accuracy	17	-0.80	0.266	Higher recall accuracy in full bandwidth condition compared to low-pass filtered conditions.	USA
Rance et al., (2023)	Classroom noise	Enclosed: mean =56.7, SD = 5.2 dB LAeq; Open: mean = 62.1, SD = 4.2 dB Laeq	07-11	Elementary	Reading fluency	146	-0.34	0.083	Effect of noise is more noticeable in open classrooms.	Australia
Shield & Dockrell (2008) (I)	Environmental noise (Area A)	LAeq	07-11	Elementary	KS1 Reading (FSM)	142	-0.34	0.084	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (II)		LAeq	07-11	Elementary	KS1 Reading (EAL)	142	-0.54	0.088	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (III)		LAmax	07-11	Elementary	KS1 Reading (FSM)	142	-0.30	0.083	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (IV)		LAmax	07-11	Elementary	KS1 Reading (EAL)	142	-0.54	0.088	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (IX)		LAeq	07-11	Elementary	KS2 English (FSM)	142	-0.34	0.084	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK

Shield & Dockrell (2008) (V)		LAeq	07-11	Elementary	KS1 Maths (FSM)	142	-0.47	0.086	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (VI)		LAeq	07-11	Elementary	KS1 Maths (EAL)	142	-0.58	0.089	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (VII)		LAmax	07-11	Elementary	KS1 Maths (FSM)	142	-0.30	0.083	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (VIII)		LAmax	07-11	Elementary	KS1 Maths (EAL)	142	-0.45	0.085	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (X)		LAeq	07-11	Elementary	KS2 English (EAL)	142	-0.56	0.089	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XI)		LAmax	07-11	Elementary	KS2 English (FSM)	142	-0.52	0.088	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XII)		LAmax	07-11	Elementary	KS2 English (EAL)	142	-0.81	0.098	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XIII)		LAeq	07-11	Elementary	KS2 Maths (FSM)	142	-0.47	0.086	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XIV)		LAeq	07-11	Elementary	KS2 Maths (EAL)	142	-0.67	0.093	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XIX)		LAmax	07-11	Elementary	KS2 Science (FSM)	142	-0.72	0.096	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XL)		LAeq	07-11	Elementary	KS1 Reading	142	0.02	0.083	General average result	UK
Shield & Dockrell (2008) (XLI)		LAeq	07-11	Elementary	KS1 Maths	142	-0.34	0.084	General average result	UK
Shield & Dockrell (2008) (XLII)	Classroom noise	LAeq	07-11	Elementary	KS2 English	142	-0.98	0.107	General average result	UK
Shield & Dockrell (2008) (XLIII)		LAeq	07-11	Elementary	KS2 Maths	142	-0.08	0.083	General average result	UK
Shield & Dockrell (2008) (XLIV)		LAeq	07-11	Elementary	KS2 Science	142	-0.77	0.097	General average result	UK

Shield & Dockrell (2008) (XV)	Environmental noise (Area A)	LAmax	07-11	Elementary	KS2 Maths (FSM)	142	-0.77	0.097	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XVI)	Environmental noise (Area A)	LAmax	07-11	Elementary	KS2 Maths (EAL)	142	-0.96	0.105	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XVII)	Environmental noise (Area A)	LAeq	07-11	Elementary	KS2 Science (FSM)	142	-0.52	0.088	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XVIII)	Environmental noise (Area A)	LAeq	07-11	Elementary	KS2 Science (EAL)	142	-0.67	0.093	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XX)	Environmental noise (Area A)	LAmax	07-11	Elementary	KS2 Science (EAL)	142	-0.90	0.103	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XXI)		LAeq	07-11	Elementary	KS1 Reading (FSM)	142	-0.75	0.096	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XXII)		LAeq	07-11	Elementary	KS1 Reading (EAL)	142	-0.87	0.102	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XXIII)		LAmax	07-11	Elementary	KS1 Reading (FSM)	142	-0.75	0.096	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XXIV)		LAmax	07-11	Elementary	KS1 Reading (EAL)	142	-0.87	0.102	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XXIX	Environmental (Area B or more 60 dBA)	LAeq	07-11	Elementary	KS2 English (FSM)	142	-0.72	0.096	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XXVI)		LAeq	07-11	Elementary	KS1 Maths (EAL)	142	-0.16	0.083	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XXVII)		LAmax	07-11	Elementary	KS1 Maths (FSM)	142	-0.04	0.083	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XXVIII)		LAmax	07-11	Elementary	KS1 Maths (EAL)	142	-0.08	0.083	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XXX)		LAeq	07-11	Elementary	KS2 English (EAL)	142	-0.79	0.099	English as an Additional Language (EAL): Students whose first	UK

									language is not English	
Shield & Dockrell (2008) (XXXI)		LAmax	07-11	Elementary	KS2 English (FSM)	142	-1.01	0.108	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XXXII)		LAmax	07-11	Elementary	KS2 English (EAL)	142	-1.01	0.108	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XXXIII)		LAeq	07-11	Elementary	KS2 Maths (FSM)	142	-0.18	0.083	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XXXIV)		LAeq	07-11	Elementary	KS2 Maths (EAL)	142	-0.36	0.084	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XXXIX)		LAmax	07-11	Elementary	KS2 Science (FSM)	142	-0.75	0.096	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XXXV)		LAmax	07-11	Elementary	KS2 Maths (FSM)	142	-0.62	0.091	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XXXVI)		LAmax	07-11	Elementary	KS2 Maths (EAL)	142	-0.67	0.093	English as an Additional Language (EAL): Students whose first language is not English	UK
Shield & Dockrell (2008) (XXXVII)		LAeq	07-11	Elementary	KS2 Science (FSM)	142	-0.32	0.084	Free School Meals (FSM): Indicator of socioeconomic disadvantage	UK
Shield & Dockrell (2008) (XXXVIII)		LAeq	07-11	Elementary	KS2 Science (EAL)	142	-0.47	0.086	English as an Additional Language (EAL): Students whose first language is not English	UK
Valente et al. (2011) (I)		Discussion Condition: SNR +10 dB; RT 0.6 s	8	Elementary	Sentence recognition	10	-1.61	0.593	Significant effect of noise on performance in children, higher SNR improves performance (98.67 vs 91.87)	USA
Valente et al. (2011) (II)		Discussion Condition: SNR +7 dB; RT 1.5 s	8	Elementary	Sentence recognition	10	-1.61	0.593	Significant effect of noise on performance in children, lower performance in higher RT condition	USA
Valente et al. (2011) (III)	Classroom noise (simulated)	Discussion Condition: SNR +10 dB; RT 0.6 s	11	Elementary	Sentence recognition	10	-1.66	0.612	Significant effect of noise on performance in children, higher SNR improves performance (100.00 vs 97.87)	USA
Valente et al. (2011) (IV)		Discussion Condition: SNR +7 dB; RT 1.5 s	11	Elementary	Sentence recognition	10	-1.66	0.612	Significant effect of noise on performance in	USA

									children, lower performance in higher RT condition	
Valente et al. (2011) (V)		Good conditions: 60 dB(A), 50 dB(A) (SNR = 10 dB)	08-12	Elementary	Comprehension	50	-2.0	0.286	High effect of good acoustic conditions on comprehension, better performance in quieter conditions	USA
Vettori et al. (2022) (I)		Long RT vs. Short RT	7-8	Elementary	Verbal working memory	25	-0.65	0.220	Moderate effect, consistent with r = -0.33	Italy
Vettori et al. (2022) (II)		Long RT vs. Short RT	7-8	Elementary	Recalled words	25	-0.628	0.218	Moderate effect, better results under adequate acoustic conditions	Italy
Vettori et al. (2022) (III)		Long RT vs. Short RT	7-8	Elementary	Omitted words	25	-0.629	0.218	Moderate effect, fewer words omitted under adequate acoustic conditions	Italy
Vettori et al. (2022) (IV)		Long RT vs. Short RT	7-8	Elementary	Intrusions	25	-0.277	0.204	Moderate decrease in intrusions under adequate acoustic conditions	Italy
Vettori et al. (2022) (V)		Long RT vs. Short RT	7-8	Elementary	Inversions	25	-0.109	0.200	Small effect, fewer inversions under adequate acoustic conditions	Italy
Vettori et al. (2022) (VI)		Long RT vs. Short RT	7-8	Elementary	Inventions	25	-0.098	0.200	Small effect, fewer inventions under adequate acoustic conditions	Italy
Vettori et al. (2022) (VII)	Classroom background babble	Long RT vs. Short RT	7-8	Elementary	Evaluations	25	-0.036	0.200	Very small effect, practically insignificant difference in the number of evaluations	Italy
Vettori et al. (2022) (VIII)		Long RT vs. Short RT	7-8	Elementary	Omitted evaluations	25	-0.174	0.201	Small effect, slight increase in omitted evaluations under adequate acoustic conditions	Italy
Visentin et al.(2023) (I)		2S vs Quiet	10-13	Elementary	Sentence Comprehension: Accuracy	71	-0.43	0.122	Children with high selective attention	Italy
Visentin et al.(2023) (II)		2S vs 4S	10-13	Elementary	Sentence Comprehension: Accuracy	71	-0.32	0.119	Children with high selective attention	Italy
Visentin et al.(2023) (IX)		2S vs Quiet	10-13	Elementary	Sentence Comprehension: Response Time	71	-0.68	0.146	Children with high selective attention	Italy
Visentin et al.(2023) (VII)		Quiet vs 4S	10-13	Elementary	Sentence Comprehension: Response Time	71	-0.48	0.127	Children with low selective attention	Italy
Visentin et al.(2023) (VIII)		2S vs 4S	10-13	Elementary	Sentence Comprehension: Response Time	71	-0.70	0.148	Children with low selective attention	Italy
Xie et al. (2011) (I)	Environmental noise	Laeq	14-16	Secondary	Key Stage 4 score	96 schools	-0.11	0.102	Pearson correlation of 0.056 indicates a very weak positive	Greater London (UK)

									relationship. LAeq (37.5 to 60.8 dBA)	
Xie et al. (2011) (II)		Lamax	14-16	Secondary	Key Stage 4 score	96 schools	-0.13	0.102	Spearman correlation of 0.064 indicates a weak positive relationship. LAmax (37.5 to 72.5 dBA)	Greater London (UK)
Xie et al. (2011) (IV)		LAeq	14-16	Secondary	CVA score	96 schools	-0.058	0.102	Spearman correlation of -0.029 indicates a very weak negative relationship.	Greater London (UK)
Xie et al. (2011) (V)		LAmax	14-16	Secondary	CVA score	96 schools	-0.297	0.102	Spearman correlation of 0.147 indicates a weak positive relationship.	Greater London (UK)
Zhang & Ma (2022) (I)		Attention task: 3 min exposure to noise levels ranging from 35 dB(A) to 65 dB(A).	7-9	Elementary	Attention task	30	-0.135	0.191	Effect of noise level: Small effect of noise level on attention	China
Zhang & Ma (2022) (II)		Attention task: 3 min exposure to noise levels ranging from 35 dB(A) to 65 dB(A).	7-9	Elementary	Attention task	30	-0.045	0.187	Very small effect of noise type on attention	China
Zhang & Ma (2022) (III)		Short-term memory task: 2 min exposure to noise levels ranging from 35 dB(A) to 65 dB(A).	7-9	Elementary	Short-term memory	30	-0.063	0.188	Very small effect of noise level on short-term memory	China
Zhang & Ma (2022) (V)		Calculation task: 5 min exposure to noise levels ranging from 35 dB(A) to 65 dB(A).	7-11	Elementary	Calculation task	93	-0.114	0.104	Small effect of noise type on calculation	China
Zhang & Ma (2022) (VI)	Road traffic noise, low-frequency noise, white noise	Reading task: 5 min exposure to noise levels ranging from 35 dB(A) to 65 dB(A).	7-12	Elementary	Reading task	95	-0.095	0.102	Small effect of noise level on reading	China
Zhang & Ma (2022) (VII)		Reading task: 5 min exposure to noise levels ranging from 35 dB(A) to 65 dB(A).	7-12	Elementary	Reading task	95	-0.095	0.102	Small effect of noise type on reading	China
Zhang & Navejar (2015) (I)		63.70 dB(A) (SD = 5.33). Urban school	14-18	Secondary	GPA vs MAP Score	122	-0.72	0.103	Moderate negative correlation	USA
Zhang & Navejar (2015) (II)	Environmental noise	63.70 dB(A) (SD = 5.33). Urban school	14-18	Secondary	Coping Noise vs MAP	122	-0.65	0.103	Higher noise annoyance, lower MAP score	USA
Zhang & Navejar (2015) (III)		63.70 dB(A) (SD = 5.33). Urban school	14-18	Secondary	Coping Noise vs GPA	122	-0.10	0.091	No significant relationship	USA