Appendix 1. Coding Sheet

Reference	Study Name	Sample size	Variables	Orthographic choice	Hedges' *g*	SE	Character writing	Hedges' *g*	SE	Age	Reading methods	The presentation of target words	L1	L2	Country/Region
Context															
Liu, Y. (2018). *Acquisition of Word Spellings and Meanings during Reading in Nonnative Chinese Speakers* (Doctoral dissertation), Western Kentucky University, Bowling Green, America.	Liu (2018-2) novice	25	context vs. isolation	N/A	N/A	N/A	N/A	N/A	N/A	19.42	read silently	N/A	English	Chinese	US
Liu, Y. (2018). *Acquisition of Word Spellings and Meanings during Reading in Nonnative Chinese Speakers* (Doctoral dissertation), Western Kentucky University, Bowling Green, America.	Liu (2018-2) intermediate	31	context vs. isolation	N/A	N/A	N/A	N/A	N/A	N/A	19.42	read silently	N/A	English	Chinese	US
Liu, Y. (2018). *Acquisition of Word Spellings and Meanings during Reading in Nonnative Chinese Speakers* (Doctoral dissertation), Western Kentucky University, Bowling Green, America.	Liu (2018-2) advanced	16	context vs. isolation	N/A	N/A	N/A	N/A	N/A	N/A	19.42	read silently	N/A	English	Chinese	US
Li, Y., Li, H., & Wang, M. (2020b). Orthographic learning via self-teaching in Chinese: The roles of phonological recoding, context, and phonetic and semantic radicals. *Journal of Experimental Child Psychology* , *199* , 104913.	Li et al. (2020b)	67	context vs. isolation	√	−0.141	0.242	√	0.223	0.242	8.25	reading aloud	two-character words including two target characters	Chinese	N/A	Mainland, China
Xiang, Y. (2023). *义符在阅读伴随词汇学习中的作用研究 [A Study on the Role of Semantic Radicals in Vocabulary Learning Accompanied by Reading]* (Master dissertation), Tianjin Normal University, Tianjin, China.	Xiang (2023-2)	120	context natural vs. strong	√	0.100	0.129	√	N/A	N/A	20.7	reading with eyetracking	single-character words	Chinese	N/A	Mainland, China
Orthographic complexity															

He, F. (2021). *汉语新词词形信息在阅读伴随新词学习中的作用：基于眼动的证据 [The Role of Orthographic Information of New Chinese Words in Reading-Accompanied Vocabulary Learning: Evidence from Eye-Tracking]* (Doctoral dissertation), Tianjin Normal University, Tianjin, China.	He (2021-1-1)	44	the number of strokes	√	−0.180	0.212	N/A	N/A	N/A	19.95	reading with eyetracking	two-character words	Chinese	N/A	Mainland, China
He, F. (2021). *汉语新词词形信息在阅读伴随新词学习中的作用：基于眼动的证据 [The Role of Orthographic Information of New Chinese Words in Reading-Accompanied Vocabulary Learning: Evidence from Eye-Tracking]* (Doctoral dissertation), Tianjin Normal University, Tianjin, China.	He (2021-1-2)	40	the number of strokes	√	−0.099	0.222	N/A	N/A	N/A	19.9	reading with eyetracking	two-character words	Chinese	N/A	Mainland, China
Zhuyin															
Ho, W. M. (2014). *Orthographic learning via self-teaching: Evidence from Mandarin Chinese* (Doctoral dissertation), University of Erfurt, Erfurt, Germany.	Ho (2014-1)	40	Zhuyin: with vs. without	√	−0.893	0.232	√	−1.628	0.256	9.5	reading aloud	two-character words	Chinese	N/A	Taiwan, China
Li, L., Wang, H. C., Castles, A., Hsieh, M. L., & Marinus, E. (2018). Phonetic radicals, not phonological coding systems, support orthographic learning via self-teaching in Chinese. *Cognition* , *176* , 184-194.	Li et al. (2018) Zhuyin	79	Zhuyin: with vs. without	√	0.328	0.224	√	0.102	0.223	8.1	reading aloud	three-character phrases	Chinese	N/A	Taiwan, China
Phonetic radical															
Ho, W. M. (2014). *Orthographic learning via self-teaching: Evidence from Mandarin Chinese* (Doctoral dissertation), University of Erfurt, Erfurt, Germany.	Ho (2014-2)	22	phonetic radical: with vs. without	√	1.095	0.442	√	2.617	0.569	9.44	reading aloud	two-character words	Chinese	N/A	Taiwan, China
Liu, Y. (2018). *Acquisition of Word Spellings and Meanings during Reading in Nonnative Chinese Speakers* (Doctoral dissertation), Western Kentucky University, Bowling Green, America.	Liu (2018-1)	45	phonetic radical: regular vs. irregular	√	1.295	0.323	N/A	N/A	N/A	19.84	reading aloud	two-character words	English	Chinese	US

Li, L., Wang, H. C., Castles, A., Hsieh, M. L., & Marinus, E. (2018). Phonetic radicals, not phonological coding systems, support orthographic learning via self-teaching in Chinese. *Cognition* , *176* , 184-194.	Li et al. (2018) phonetic radical	79	phonetic radical: regular vs. irregular	√	2.014	0.164	√	1.534	0.283	8.1	reading aloud	three-character phrases	Chinese	N/A	Taiwan, China
Li, Y., Li, H., & Wang, M. (2020b). Orthographic learning via self-teaching in Chinese: The roles of phonological recoding, context, and phonetic and semantic radicals. *Journal of Experimental Child Psychology* , *199* , 104913.	Li et al. (2020 b)	67	phonetic radical: regular vs. irregular	√	1.185	0.186	√	0.703	0.177	8.25	reading with eyetracking	two-character words including two target characters	Chinese	N/A	Mainland, China
Li, L., Marinus, E., Castles, A., Hsieh, M. L., & Wang, H. C. (2021). Semantic and phonological decoding in children's orthographic learning in Chinese. *Scientific Studies of Reading* , *25* (4), 319-334.	Li et al. (2021)	92	phonetic radical: regular vs. irregular	√	0.606	0.150	√	1.006	0.156	10	reading silently	three-character phrases	Chinese	N/A	Taiwan, China
Li, Y., Xiao, L., & Li, H. (2022). Self-teaching in Chinese: The roles of phonetic and semantic radicals in orthographic and vocabulary learning. *Journal of Research in Reading* , *45* (1), 20-42.	Li et al. (2022)	34	phonetic radical: regular vs. irregular	√	0.067	0.335	√	0.446	0.339	8.48	reading aloud	single-character words	Chinese	N/A	Mainland, China
Li, L. (2020b). Phonological and semantic effects on orthographic learning in Chinese. Scientific Studies of Reading. In *The role of phonology and semantics in orthographic learning in Chinese: The lexical and sublexical components* (Doctoral dissertation). Macquarie University, Sydney, Australia.	Li (2020b)	67	phonetic radical: regular vs. irregular	√	−0.061	0.176	√	0.410	0.178	25.11	reading with eyetracking	three-character phrases	Chinese	N/A	Mainland, China
Semantic radical															
Ho, W. M. (2014). *Orthographic learning via self-teaching: Evidence from Mandarin Chinese* (Doctoral dissertation), University of Erfurt, Erfurt, Germany.	Ho (2014-4)	20	semantic radical: transparent vs. opaque	√	0.449	0.434	√	0.659	0.441	8.17	reading aloud	two-character words	Chinese	N/A	Taiwan, China

Li, L., Marinus, E., Castles, A., Yu, L., & Wang, H. C. (2019). Eye-tracking the effect of semantic decoding on orthographic learning in Chinese. *PsyArchiv Preprints* .	Li et al. (2019-1)	25	semantic radical: transparent vs. opaque	√	0.079	0.279	√	−0.022	0.278	25.7	reading with eyetracking	three-character phrases	Chinese	N/A	Australia
Li, L., Marinus, E., Castles, A., Yu, L., & Wang, H. C. (2019). Eye-tracking the effect of semantic decoding on orthographic learning in Chinese. *PsyArchiv Preprints* .	Li et al. (2019-2)	16	semantic radical: transparent vs. opaque	√	0.000	0.345	√	0.084	0.345	26.2	reading with eyetracking	three-character phrases	Chinese	N/A	Australia
Li, Y., Li, H., & Wang, M. (2020a). The roles of phonological recoding, semantic radicals and writing practice in orthographic learning in Chinese. *Scientific Studies of Reading* , *24* (3), 252-263.	Li et al. (2020 a)	22	semantic radical: transparent vs. opaque	√	0.285	0.298	√	0.281	0.298	9.49	reading aloud	two-character words including two target characters	Chinese	N/A	Mainland, China
He, F. (2021). *汉语新词词形信息在阅读伴随新词学习中的作用：基于眼动的证据 [The Role of Orthographic Information of New Chinese Words in Reading-Accompanied Vocabulary Learning: Evidence from Eye-Tracking]* (Doctoral dissertation), Tianjin Normal University, Tianjin, China.	He (2021-3)	40	semantic radical: transparent vs. opaque	√	−0.198	0.222	N/A	N/A	N/A	19.98	reading with eyetracking	two-character words including two target characters	Chinese	N/A	Mainland, China
Li, L., Marinus, E., Castles, A., Hsieh, M. L., & Wang, H. C. (2021). Semantic and phonological decoding in children's orthographic learning in Chinese. *Scientific Studies of Reading* , *25* (4), 319-334.	Li et al. (2021)	92	semantic radical: transparent vs. opaque	√	0.074	0.147	√	0.080	0.147	10	reading silently	three-character phrases	Chinese	N/A	Taiwan, China
Li, Y., Xiao, L., & Li, H. (2022). Self-teaching in Chinese: The roles of phonetic and semantic radicals in orthographic and vocabulary learning. *Journal of Research in Reading* , *45* (1), 20-42.	Li et al. (2022)	34	semantic radical: transparent vs. opaque	√	3.639	0.554	√	2.510	0.453	8.48	reading aloud	single-character words	Chinese	N/A	Mainland, China

Li, Y., Li, H., & Wang, M. (2020b). Orthographic learning via self-teaching in Chinese: The roles of phonological recoding, context, and phonetic and semantic radicals. *Journal of Experimental Child Psychology* , *199* , 104913.	Li et al. (2020b)	67	semantic radical: transparent vs. opaque	√	0.040	0.172	√	−0.170	0.172	8.25	reading aloud	two-character words including two target characters	Chinese	N/A	Mainland, China
Liu, Y. (2018). *Acquisition of Word Spellings and Meanings during Reading in Nonnative Chinese Speakers* (Doctoral dissertation), Western Kentucky University, Bowling Green, America.	Liu (2018-1)	45	semantic radical: transparent vs. opaque	√	1.077	0.314	N/A	N/A	N/A	19.84	reading aloud	two-character words	English	Chinese	US
He, F. (2021). *汉语新词词形信息在阅读伴随新词学习中的作用：基于眼动的证据 [The Role of Orthographic Information of New Chinese Words in Reading-Accompanied Vocabulary Learning: Evidence from Eye-Tracking]* (Doctoral dissertation), Tianjin Normal University, Tianjin, China.	He (2021-4-2)	69	radical categories: consistent vs. inconsistent	√	0.408	0.171	N/A	N/A	N/A	21.42	reading with eyetracking	two-character words including two target characters	Chinese	N/A	Mainland, China
He, F. (2021). *汉语新词词形信息在阅读伴随新词学习中的作用：基于眼动的证据 [The Role of Orthographic Information of New Chinese Words in Reading-Accompanied Vocabulary Learning: Evidence from Eye-Tracking]* (Doctoral dissertation), Tianjin Normal University, Tianjin, China.	He (2021-4-1)	72	radical categories: consistent vs. inconsistent	√	0.469	0.168	N/A	N/A	N/A	20	reading with eyetracking	two-character words including two target characters	Chinese	N/A	Mainland, China
Xiang, Y. (2023). *义符在阅读伴随词汇学习中的作用研究 [A Study on the Role of Semantic Radicals in Vocabulary Learning Accompanied by Reading]* (Master dissertation), Tianjin Normal University, Tianjin, China.	Xiang (2023-1)	113	radical categories: consistent vs. inconsistent	√	0.000	0.133	N/A	N/A	N/A	20.3	reading with eyetracking	single-character words	Chinese	N/A	Mainland, China
Xiang, Y. (2023). *义符在阅读伴随词汇学习中的作用研究 [A Study on the Role of Semantic Radicals in Vocabulary Learning Accompanied by Reading]* (Master dissertation), Tianjin Normal University, Tianjin, China.	Xiang (2023-2)	120	radical categories: consistent vs. inconsistent	√	0.210	0.129	N/A	N/A	N/A	20.7	reading with eyetracking	single-character words	Chinese	N/A	Mainland, China

Ho, W. M. (2014). *Orthographic learning via self-teaching: Evidence from Mandarin Chinese* (Doctoral dissertation), University of Erfurt, Erfurt, Germany.	Ho (2014-3)	20	semantic cue vs. no semantic cue	√	1.812	0.370	√	2.234	0.555	8.17	reading aloud	two-character words	Chinese	N/A	Taiwan, China
Li, L. (2020b). Phonological and semantic effects on orthographic learning in Chinese. Scientific Studies of Reading. In *The role of phonology and semantics in orthographic learning in Chinese: The lexical and sublexical components* (Doctoral dissertation). Macquarie University, Sydney, Australia.	Li (2020b)	67	semantic radical: transparent vs. opaque	√	0.029	0.176	√	0.512	0.179	25.11	reading with eyetracking	three-character phrases	Chinese	N/A	Mainland, China

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