

Online Supplementary Materials. Remaining Full Statistical Model Outputs

All models except comprehension scores and total number of visits on words use log-transformed data to better fit a Gaussian distribution. Significant results are given in **bold** in the tables; * signifies $p < .05$, ** signifies $p < .01$, *** signifies $p < .001$. A colon denotes an interaction, and p -values were generated using Satterthwaite approximation.

Table S1. Comprehension scores depending on instruction.

	Estimate	SE	df	t -value	p -value	
Thorough reading	0.3488	0.1348	14.0310	2.587	.021485	*
Skimming	-0.6873	0.1653	13.7800	-4.157	.000999	***
Spell checking	-0.7191	0.1524	13.8200	-4.720	.000340	***

Table S2. Average fixation durations and saccade amplitudes.

	Estimate	SE	df	t -value	p -value	
<i>Average fixation durations</i>						
Thorough reading	-0.005133	0.010100	14.660000	-0.508	.6188	
Skimming	-0.031256	0.011409	19.850000	-2.740	.0127	*
Spell checking	0.083607	0.014926	51.620000	5.602	8.3e-07	***
<i>Saccade amplitudes</i>						
Thorough reading	0.05897	0.01503	87500	3.923	8.75e-05	***
Skimming	0.08978	0.01825	86420	4.918	8.76e-06	***
Spell checking	-0.1673	0.01535	84640	-10.902	< 2e-16	***

Table S3. Proportions of leftward and vertical saccades. Both models are binomial generalized linear mixed models.

	Estimate	SE	z -value	$\Pr(> z)$	
<i>Leftward saccades</i>					
Thorough reading	0.02522	0.02117	1.19	.2335	
Skimming	-0.12283	0.02627	-4.68	2.93e-06	***
Spell checking	0.04935	0.02147	2.30	.0215	*
<i>Vertical saccades</i>					
Thorough reading	0.06275	0.02569	2.44	.0146	*
Skimming	-0.17570	0.03264	-5.38	7.34e-08	***
Spell checking	0.14861	0.02574	5.77	7.78e-09	***

Table S4. First fixation durations on words as a function of word frequency, when excluding skipped words.

	Estimate	SE	df	t -value	p -value	
Word frequency	1.425e-02	3.052e-03	3.626e+04	4.667	3.07e-06	***
Thorough reading	2.194e-02	1.538e-02	3.626e+04	1.427	.1537	
Skimming	-2.336e-02	1.687e-02	3.626e+04	-1.385	.1661	
Spell checking	7.480e-02	1.545e-02	3.626e+04	4.842	1.29e-06	***

Word frequency: Thorough reading	-8.041e-03	4.239e-03	3.625e+04	-1.897	.0578	.
Word frequency: Skimming	-1.363e-03	4.575e-03	3.625e+04	-0.298	.7658	.
Word frequency: Spell checking	3.374e-03	4.243e-03	3.625e+04	0.795	.4265	.

Table S5. First-pass reading times on words as a function of word frequency, when excluding skipped words.

	Estimate	SE	df	<i>t</i> -value	<i>p</i> -value	
Word frequency	3.998e-02	3.423e-03	3.625e+04	11.681	<2e-16	***
Thorough reading	2.791e-02	1.724e-02	3.626e+04	1.619	.10551	.
Skimming	-3.343e-02	1.892e-02	3.625e+04	-1.768	.07714	.
Spell checking	5.643e-02	1.732e-02	3.626e+04	3.258	.00112	**
Word frequency: Thorough reading	-8.493e-03	4.753e-03	3.625e+04	-1.787	.07399	.
Word frequency: Skimming	-4.902e-03	5.131e-03	3.625e+04	-0.955	.33939	.
Word frequency: Spell checking	2.386e-02	4.758e-03	3.625e+04	5.016	5.31e-07	***

Table S6. Total reading times on words as a function of word frequency, when excluding skipped words.

	Estimate	SE	df	<i>t</i> -value	<i>p</i> -value	
Word frequency	1.009e-01	4.657e-03	3.626e+04	21.662	<2e-16	***
Thorough reading	6.797e-02	2.346e-02	3.626e+04	2.897	.00376	**
Skimming	-1.805e-01	2.574e-02	3.626e+04	-7.013	2.38e-12	***
Spell checking	5.510e-02	2.357e-02	3.626e+04	2.338	.01940	*
Word frequency: Thorough reading	1.859e-02	6.466e-03	3.625e+04	2.875	.00404	**
Word frequency: Skimming	-2.970e-02	6.979e-03	3.625e+04	-4.256	2.09e-05	***
Word frequency: Spell checking	4.359e-02	6.472e-03	3.625e+04	6.734	1.67e-11	***

Table S7. First fixation durations on words as a function of word length, when excluding skipped words.

	Estimate	SE	df	<i>t</i> -value	<i>p</i> -value	
Word length	8.501e-03	1.980e-03	3.626e+04	4.294	1.76e-05	***
Thorough reading	1.840e-02	1.552e-02	3.626e+04	1.185	0.2359	.
Skimming	-1.489e-02	1.684e-02	3.626e+04	-0.885	0.3764	.
Spell checking	6.101e-02	1.556e-02	3.626e+04	3.920	8.87e-05	***
Word length:	-4.466e-03	2.755e-03	3.625e+04	-1.621	0.1050	.

Thorough reading					
Word length:	-2.500e-03	2.920e-03	3.625e+04	-0.856	0.3920
Skimming					
Word length:	4.901e-03	2.754e-03	3.625e+04	1.779	0.0752
Spell checking					

Table S8. First-pass reading times on words as a function of word length, when excluding skipped words.

	Estimate	SE	df	<i>t</i> -value	<i>p</i> -value	
Word length	2.996e-02	2.209e-03	3.626e+04	13.560	<2e-16	***
Thorough reading	2.747e-02	1.732e-02	3.626e+04	1.585	0.1129	
Skimming	-2.999e-02	1.879e-02	3.626e+04	-1.596	0.1105	
Spell checking	1.890e-02	1.737e-02	3.626e+04	1.088	0.2765	
Word length:	-5.268e-03	3.074e-03	3.625e+04	-1.713	0.0866	.
Thorough reading						
Word length:	-4.105e-03	3.259e-03	3.625e+04	-1.260	0.2078	
Skimming						
Word length:	2.285e-02	3.074e-03	3.625e+04	7.435	1.07e-13	***
Spell checking						

Table S9. Total reading times on words as a function of word length, when excluding skipped words.

	Estimate	SE	df	<i>t</i> -value	<i>p</i> -value	
Word length	7.810e-02	2.953e-03	3.604e+04	26.442	<2e-16	***
Thorough reading	3.592e-02	4.160e-02	2.200e+01	0.863	0.397316	
Skimming	-1.444e-01	3.975e-02	5.800e+01	-3.632	0.000595	***
Spell checking	-1.553e-02	4.884e-02	4.600e+01	-0.318	0.751875	
Word length:	1.655e-02	4.104e-03	3.605e+04	4.033	5.51e-05	***
Thorough reading						
Word length:	-2.413e-02	4.356e-03	3.592e+04	-5.540	3.04e-08	***
Skimming						
Word length:	3.965e-02	4.111e-03	3.603e+04	9.646	<2e-16	***
Spell checking						

Table S10. Number of visits on words as a function of word length.

	Estimate	SE	df	<i>t</i> -value	<i>p</i> -value	
Word length	1.711e-01	4.014e-03	6.772e+04	42.624	<2e-16	***
Thorough reading	1.668e-02	7.927e-02	1.800e+01	0.210	0.835740	
Skimming	-1.655e-01	7.017e-02	3.000e+01	-2.358	0.025059	*
Spell checking	2.988e-02	9.278e-02	3.400e+01	0.322	0.749416	
Word length:	5.282e-02	5.690e-03	6.772e+04	9.283	<2e-16	***
Thorough reading						
Word length:	-5.734e-02	5.670e-03	6.772e+04	-10.113	<2e-16	***

Skimming**Word length:** 3.095e-02 5.683e-03 6.772e+04 5.446 5.16e-08 *****Spell checking**
