

Supplementary Material for:
**Typing Less, Saying More? – The Effects of Using
Generative AI in Online Consumer Review Writing**

<i>Appendix A: Variables of the Online Experiment</i>	2
<i>Appendix B: Descriptive Statistics</i>	4
<i>References</i>	5

Appendix A: Variables of the Online Experiment

A1. Main Variable

1. Cognitive Load (*Likert Scale: 1 = Low to 7 = High*)

Item

How much mental and perceptual activity was required to write the review (e.g., thinking, deciding, calculating, etc.)?

Adapted from
Hart & Staveland, 1988

A2. Control Variables

1. Familiarity with Writing Reviews (*Dropdown*)

Items

How often do you write online reviews?

Answers:

- Daily
- Weekly
- Monthly
- Quarterly
- Yearly
- Less than yearly
- Never

Adapted from
Habla et al. 2024

2. Familiarity with Reading Reviews (*Likert Scale: 1 = Strongly Disagree to 7 = Strongly Agree*)

Items

I read online consumer review frequently.

Adapted from
Lee et al. 2012

3. Time Last Visit (*Dropdown*)

Items

When did you last visit an Mexican restaurant?

Answers:

- Within the last week
- Within the last 2 weeks
- Within the last month
- Within the last 3 months
- Within the last 6 months
- More than 6 months ago

Developed for
this study

4. Prior AI Usage (Dropdown)

Items	
Prior Use of Assistive Technology in Writing	
Answers:	Adapted from
- No	Dhillon et al. 2024
- Basic Usage	
- Advanced Writing Assistants	

5. Attitude Toward Writing (Likert Scale: 1 = Strongly Disagree to 7 = Strongly Agree)

Items	
I give a lot of detail when writing.	
I plan out my writing and stick with the plan.	
I enjoy writing.	
Writing is fun.	
Cronbach's alpha = 0.80	
Adapted from	
Graham et al. 2017	

6. Sociodemographic Questions

Items	
Age	Data provided from
Sex	Prolific

Appendix B: Descriptive Statistics

	Treatment Group (n = 43)				Control Group (n = 42)				Difference in Means	Overall (n = 85)			
	Mean	SD	Min	Max	Mean	SD	Min	Max		Mean	SD	Min	Max
Main Variables													
Cognitive Load (H1)	2,56	1,45	1,00	7,00	3,50	1,45	1,00	6,00	-0,94***	3,02	1,52	1,00	7,00
Number of Aspects (H2)	4,37	1,45	2,00	8,00	2,60	1,17	1,00	6,00	1,78***	3,49	1,59	1,00	8,00
Number of Topics (H2)	2,56	0,77	1,00	5,00	1,79	0,72	1,00	3,00	0,77***	2,18	0,83	1,00	5,00
Further Measures													
Number of Aspects GenAI Input	4,42	1,87	1,00	11,00	-	-	-	-	-	-	-	-	-
Linguistic Complexity	15,88	1,37	12,17	18,67	10,02	3,96	1,60	28,35	5,86***	12,99	4,15	1,60	28,35
Sentiment	0,92	0,28	-0,76	0,99	0,61	0,52	-0,78	0,99	0,31***	0,76	0,44	-0,78	0,99
Star Rating	4,28	0,73	2,00	5,00	4,19	0,99	1,00	5,00	0,09	4,24	0,87	1,00	5,00
Control Variables													
Familiarity with Writing Reviews	4,26	1,69	1,00	7,00	3,69	1,42	2,00	7,00	0,57	3,98	1,58	1,00	7,00
Familiarity with Reading Reviews	5,58	1,42	2,00	7,00	5,62	1,10	3,00	7,00	-0,04	5,60	1,26	2,00	7,00
Time Last Visit	2,49	1,24	1,00	6,00	3,14	1,65	1,00	6,00	-0,65	2,81	1,48	1,00	6,00
Prior AI Usage	1,93	0,55	1,00	3,00	1,76	0,66	1,00	3,00	0,17	1,85	0,61	1,00	3,00
Attitude Toward Writing	4,75	1,00	2,75	6,50	4,85	1,18	2,00	7,00	-0,10	4,80	1,09	2,00	7,00
Age	38,79	10,98	19,00	64,00	39,36	13,34	19,00	73,00	-0,57	39,07	12,13	19,00	73,00
Sex	1,37	0,49	1,00	2,00	1,24	0,43	1,00	2,00	0,13	1,31	0,46	1,00	2,00
Contextual Insights													
Duration Experiment	257	130	107	783	263	193	89	1165	-6	260	163	89	1165
Duration Review Writing	110	85	28	586	100	108	15	651	10	105	97	15	651

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Statistical significance for differences between our experimental groups are based on a one-sided t-test (Number of Aspects, Number of Topics, Linguistic Complexity, Sentiment, Star Rating, Duration Experiment (in seconds), Duration Review Writing (in seconds)), a two-sided t-test (Age), a Wilcoxon rank-sum test for (Cognitive Load, Familiarity with Reading Reviews, Attitude Toward Writing), and Chi-Square test (Familiarity of Writing Reviews, Time Last Visit, Prior AI Usage, Sex (1 = Female, 2 = Male)).

References

- Graham, S., Kiuhara, S. A., Harris, K. R. & Fishman, E. J. (2017), 'The Relationship among Strategic Writing Behavior, Writing Motivation, and Writing Performance with Young, Developing Writers', *The Elementary School Journal* **118**(1), 82–104.
- Habla, M., Napirata, S., Wrabel, A., Kupfer, A. & Zimmermann, S. (2024), Never Again “The Pizza was Great!” – Developing Design Principles for Dynamic Review Templates, in ‘Proceedings of the 19th International Conference on Wirtschaftsinformatik’.
- Hart, S. G. & Staveland, L. E. (1988), ‘Development of NASA-TLX (Task Load Index): Results of Empirical and Theoretical Research’, *Advances in Psychology* **52**, 139–183.
- Lee, H.-H. & Jin Ma, Y. (2012), ‘Consumer perceptions of online consumer product and service reviews’, *Journal of Research in Interactive Marketing* **6**(2), 110–132.
- Dhillon, P. S., Molaie, S., Li, J., Golub, M., Zheng, S. & Robert, L. P. (2024), Shaping Human-AI Collaboration: Varied Scaffolding Levels in Co-writing with Language Models, in ‘Proceedings of 2024 Conference on Human Factors in Computing Systems’, ACM, pp. 1–18.