Reply to Letter to the Editor by Radner W, Maaijwee K, de Smet MD, Benesch T, Ettl A: Different Use of Radner Reading Charts and No Methodological Bias Influencing the Results

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Dear Editor,

We are aware of the opinion expressed by Radner et al. regarding our publication “Comparing reading speeds for reading standardized single sentences and paragraphs in patients with maculopathy” [1, 2]. As our response, we have published an erratum [3] (see <https://doi.org/10.1159/000511777>), in which we acknowledged Radner et al.’s critique.

If we had used the Radner texts as instructed by the developer, we should have measured reading speed of all 14 words in each Radner sentence instead of calculating the reading speed of only the correctly read words. If we calculate the reading speeds of the Radner sentences without considering the mistakes and missing words, the reading speeds are higher:

- Radner 1 = 99.34 wpm (SD 35.86) instead of 96.90 wpm (SD 37.90)
- Radner 2 = 100.87 wpm (SD 39.58) instead of 98.07 wpm (SD 41.67)
- Radner 3 = 89.43 wpm (SD 36.04) instead of 82.94 wpm (SD 37.34).

The number of errors made by all 25 patients is for Radner 1: 16, Radner 2: 17, and Radner 3: 34. It is impor-

tant to note that the number of mistakes was twice as high in reading Radner 3 compared to Radner 1 and 2. Thus, if we had not considered the mistakes, we would have found the following results:

1. The mean reading speeds remain not significantly different between the 3 Radner sentences (96.57 wpm instead of 92.6) and the 3 IReST paragraphs (94.96 wpm).
2. The differences between Radner 1 and 3 and Radner 2 and 3 remain statistically different.
3. The Radner 3 sentence is no longer significantly different from the IReST paragraphs.
4. Conclusions: the main result of the study remains unchanged. As there are statistically significant differences in reading speed between the sentences, we consider the paragraphs preferable to the sentences for repeated measurements of reading speed.

Beyond that, we see no reason to further extend our reply because it would not modify the final outcome of our study. We believe that every researcher should feel free to use any appropriate tool to examine specific clinical or research questions concerning reading performance. It was not our intention to recommend any product for this purpose.

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Conflict of Interest Statement

C.K., T.M., and E.K.A. declare that they have no conflicts of interest. At the time of the study, until December 31, 2021, and in the previous 3 years, the Center of Ophthalmology, University of Tuebingen, received royalties for the sale of the IReST charts. In the future, the right of licensing will be transferred to Odilia Vision® GmbH, a German limited liability company, of which S.K.-G. and S.T.-K. are shareholders.

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Author Contributions

S.K.-G., C.K., T.M., and E.K.A. drafted the manuscript and revised it critically. S.T.-K. drafted and wrote the final version of the manuscript. All authors approved the final version of the manuscript.

References

- 1 Kortuem C, Marx T, Altpeter EK, Trauzettel-Klosinski S, Kuester-Gruber S. Comparing reading speeds for reading standardized single sentences and paragraphs in patients with maculopathy. [Ophthalmic Res.](#) 2021;64(3):512–22.
- 2 Radner W, Maaijwee K, de Smet MD, Benesch T, Ettl A. Methodical bias, incorrect use of the RADNER Reading Charts, and avoiding misleading reporting in Visual Acuity Measurements in Kortuem C, Marx T, Altpeter E, Trauzettel-Klosinski S, Kuester-Gruber S. Comparing reading speeds for reading standardized single sentences and paragraphs in patients with maculopathy. [Ophthalmic Res.](#) 2021;64(3):512–22.
- 3 Erratum. [Ophthalmic Res.](#) 2021;64(3):523.