

## RESPONSE TO LESSER LETTER TO THE EDITOR

KAI-LIN YANG

*National Taiwan Normal University, Taiwan*  
*kailin@ntnu.edu.tw*

KHAIRIANI IDRIS

*State Institute for Islamic Studies of Lhokseumawe, Indonesia*  
*khairiani@iainlhokseumawe.ac.id*

We are pleased to read your comments regarding our published article. We do agree that the language factors, such as lexical and grammatical complexities, or text cohesion, should not be bypassed in analyzing the readability of statistics text. “The literature shows, however, that readability frameworks are not yet widely used, and their limitations have been acknowledged, such as surface recognition of words as well as the neglect of writing styles and the inherent complexity of the topic” (Lesser & Wagler, 2016, as cited in Yang & Idris, 2021, p. 1). Our framework of text accessibility is concerned with both how the content of statistics is presented in the textbooks and the comprehensibility of the textbooks for particular readers. In addition, it is expected to be applicable for analyzing statistics text in various languages, not exclusively that in English, for the native students as well as for the non-native students in the language. For example, the attribute of language concreteness focuses specifically on the complexity of statistical terms (from the perspective of linguistic and from the perspective of students), rather than on the lexical complexity of all the vocabularies in the texts or on the grammatical complexity. Based on their prior knowledge as well as the language of the texts they read, students would have different perspectives on specific statistical terms. We believe that such complexity features might not be thoroughly assessed using the tools of text readability.

Likewise, the attribute of voice of statistics focuses on the quality and sufficiency of statistics contents provided in the texts, including how the statistical ideas are presented and how the meaning of data is addressed. The attribute of text coherence focuses on the presentation of overall structure of statistics concepts, i.e., whether the statistical concepts are presented as interrelated or as isolated pieces, such as revisiting the concept of center and variability when discussing boxplots or discussing different concepts using one data context. In the analysis, however, one should not neglect the intervention of textual cohesion and lexical complexity aspects in the analysis. The accessibility framework particularly focuses on the coherence of statistical concepts rather on the text coherence in a wider context.

The reflection on the difference between readability and accessibility prompts us to consider the relationships between features of text readability and attributes of text accessibility. We believe that the article of Wagler et al. (2015) and our article together may provide different perspectives on statistics texts and may be used in analyzing statistics texts from different perspectives. In order to expand the application of the accessibility framework we proposed for reading texts online, it is worthy to integrate various literature on how technology tools and text features optimize readers’ online content learning.

### REFERENCES

- Lesser, L. M., & Wagler, A. (2016). Tools for assessing readability of statistics teaching materials. *Journal of Computers in Mathematics and Science Teaching*, 35(2), 153–171.
- Wagler, A. E., Lesser, L. M., González, A. I., & Leal, L. (2015). Assessing the lexico-grammatical characteristics of a corpus of college-level statistics textbooks: Implications for instruction and practice. *Journal of Technical Writing and Communication*, 45(1), 31–56.  
<https://doi.org/10.2190/TW.45.1.c>
- Yang, K.-L., & Idris, K. (2021). Conceptualizing a framework for analyzing college statistics textbooks in terms of text accessibility. *Statistics Education Research Journal*, 20(1) Article 6.  
<https://doi.org/10.52041/serj.v20i1.102>

**KHAIRIANI IDRIS**

Department of Mathematics Education, Faculty of Tarbiya and Teacher Training  
State Institute for Islamic Studies of Lhokseumawe  
Jl. Medan-Banda Aceh KM. 275 No.1, Buket Rata - Lhokseumawe 24351  
Aceh Province, Indonesia