

Abstract Submitted
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Characterizing the Evolution and Variation of Major Physics Textbooks JENNIFER CAMPBELL, JOHN STEWART, University of Arkansas — The linguistic and structural properties of two major physics textbooks are compared. The structure of each textbook is measured and differences in the amount of space, words, and mathematics devoted to different parts of the text are reported. The linguistic richness of each text and each textual part is measured using LEXX. The readability of each textbook is characterized using standard readability formulas. A new readability formula that corrects for mathematics is proposed. The evolution of one of the textbooks over a fifteen year (four versions of the text) time span is also investigated. The reading difficulty of the textbook increased by approximately one-half a grade level over fifteen years. The lexical richness of the textbook also increased over the same period.

John Stewart
University of Arkansas

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