Eye Tracking Syntax in Language Education

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Abstract: The present study reports and discusses the use of eye tracking qualitative data in reading workshops in Brazilian middle and high schools and in Generative Syntax and Sentence Processing courses at the undergraduate and graduate levels at the Federal University of Rio de Janeiro, respectively. Both endeavors take the sentential level as the proper object to be metacognitively explored in language education (cf. Chomsky, Gallego & Ott, 2019) to develop innate science forming capacity and knowledge of language. In both projects, non-discrepant qualitative eye tracking data collected and quantitatively analyzed in experimental syntax and psycholinguistic studies carried out in Lapex (Experimental Psycholinguistics Laboratory of the Federal University of Rio de Janeiro) were displayed to students as a point of departure, triggering discussions. Classes would generally start with the display of videos showing eye tracking data, such as gaze plots and heatmaps from several studies in Psycholinguistics and Experimental Syntax that we had already developed in our laboratory. The videos usually triggered discussions with students about linguistic and psycholinguistic issues, such as the reading of sentences for gist, garden-path sentences, syntactic and semantic anomalies, the filled-gap effect, island effects, direct and indirect cause, and recursive constructions, among other topics. Active, problem-solving based methodologies were employed with the objective of stimulating student participation. The communication also discusses the importance of developing full literacy, epistemic vigilance and intellectual self-defense in an infodemic world in the lines of Maia (2022).

Keywords: reading, educational psycholinguistics, eye-tracking, active methodology

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