There is a variety of publications on elementary mechanisms of word reading, while just a few studies have been devoted to the natural reading. The goal of our complex multimodal explorative project is to construct a multidimensional developmental model of a text processing in the natural reading. The current eye tracking study of the natural text reading is part of the major project includes 3 minor projects (fMRI-study, ERP-study and Eye-tracking study) with the same participants.

Two scientific expository and two fiction narrative texts were presented to the subjects of the study, i.e. 43 9-11- and 12-14 years typically-developing (TD) and dyslexic (DY) children with normal nonverbal intelligence. The standard reading score in dyslexics was 1,5 standard deviation below mean (Kornev, Ishimova 2010). The reading time was unlimited. Then, the natural reading was followed by answering comprehension questions. During all the experiment, and eye gaze movements were registered.

Statistical analysis of the variety of oculomotor measures revealed multiple significant distinctions between the DYs and TDs in both age groups. As for text processing strategies, the DYs were not sensitive to the text type, in contrary to the TDs. For the first time, the distinctions in the low level of the gaze movement control was revealed in the DYs’ saccades Its velocity was significantly lower than in the TD peers, especially in the oldest age group.

Keywords: dyslexia, text processing, eye tracking.