

Title masterproject:	Can we 'read' the eye-movement patterns of readers?
Theoretical context:	<p>Reading is a complex skill that requires a precisely timed interplay between numerous perceptual, linguistic and general cognitive mechanisms. Given that reading involves such a diverse array of perceptual and cognitive (sub)skills, it is not surprising that people differ in the way they process written text. Evidently, they diverge on coarse dimensions such as reading speed and reading proficiency. However, they also tend to differ in more subtle ways. The way people move their eye gaze across a text, for example, varies among individuals. Whereas in some cases readers make an eye fixation on every single word, others skip words frequently by making long saccades. Furthermore, some readers tend to read almost exclusively in a linear and progressive manner, yet other types of readers make a lot of regressive eye movements, going back and forth in a text regularly.</p> <p>The broader aim of my research is to decipher why the eye-movement patterns differ among readers. Within this framework I focus on phenomena like speedreading, text coherence, language proficiency, working memory capacity, language change across the lifespan and so forth.</p>
Research Question(s):	<p>e.g.</p> <ol style="list-style-type: none"> 1. What is the influence of speedreading applications (e.g. Spritz) on reading comprehension? 2. Can we optimize the lay-out of a text and/or the way it is presented to readers (both children and adults), to improve reading comprehension? 3a. What linguistic signals (e.g. function words) do people use to construct a coherent mental representation? 3b. Is there a difference in this respect between strong comprehensive readers and poor comprehensive readers? 4. What do the eye-movement patterns of readers tell us about the readers? 5. How does the working memory capacity of readers affect the way they process a text? <p>Etc...</p>
Study population:	All age groups
Type of measures:	Behavioral: eye-movements (eye-tracking), reading times, comprehension questions etc.
Activities for students:	Developing research questions, gathering data, data-analyses, writing an article
Supervisor:	Dr. Arnout Koornneef
Number of students:	n.a.
# ECTS	20 (thesis) <i>or</i> 10 (internship)
Schedule:	October 2016 - July 2017