

Reading comprehension is important in almost every aspect of life: at work, doctor's office, or even at a bus stop. In developed countries, an average adult is schooled for 12 years, which is more than enough to master reading and reading-related skills. However, still 15% of adults struggle with comprehension when reading even simple texts. In Poland, this proportion is even higher; as PIAAC study showed, almost one in five Poles have problems with reading comprehension. This phenomenon is known as functional illiteracy, and this scientific project aims to better understand it.

To measure reading comprehension, we need a test that is still not available in Polish. That is why in the first stage of the study we will prepare and test it in 385 adults having different ages and education levels. Thanks to that, we will be able to say which scores are good, which are average, and which indicate problems with reading comprehension. Participants will be also asked about their reading and language acquisition history. In Stage 2 we will use the newly developed tool and find 120 individuals who have problems with reading comprehension, but also good comprehenders who struggled with reading acquisition in childhood (developmental dyslexia, 40 participants), and those who never had any difficulties with reading (control group, 40 participants). In all participants, we will additionally measure e.g. memory, concentration, planning, and intelligence. Thanks to that we will be able to answer the question in what way poor comprehenders differ from dyslexics and controls, but also check whether it is possible to find subtypes in the poor reading comprehension group, e.g. related to language difficulties. In the next stage, we will invite to the Nencki Institute 120 participants: two groups with reading difficulties, and a control group matched for age and educational level. We will invite them to perform an experiment based on reading text passages, typical or simplified. We want to find out whether simplifying texts according to the Plain Polish standards indeed can ease the comprehension, and if so, who can benefit most from this modification. We speculate that the group benefiting most from using plain language is the group of poor comprehenders, which will be reflected by their enhanced comprehension.

This study will allow us to better understand who is struggling most with reading comprehension, and how it relates to other skills. It is crucial to study reading comprehension difficulties, as the research shows that reading comprehension can be connected to health issues, social isolation, unemployment, or unsatisfactory jobs. In a way, it is a vicious circle - poor reading comprehension may be an obstacle in finding a good job, while a non-stimulating work environment won't help in developing good reading comprehension skills. A better understanding of the problem can help to create evidence-based interventions in the future. Moreover, one of the project outcomes will be a normalized battery of reading tests for adults, which can serve clinicians in diagnosing problems with reading comprehension in adults.