



NATIONAL PRESS RELEASE | PARIS | 14 November 2013

Decoding, oral comprehension, vocabulary: three key literacy skills for primary schools in priority areas

What types of skills do first-year primary school children in education priority areas need most to learn to read? To find out, a team of researchers at CNRS and the universities of Grenoble, Paris Descartes and Aix-Marseille conducted a study of 394 children in ZEPs (1) administered by the Académie de Lyon at the end of their first year of school. The results show that, of all the factors involved in their reading comprehension skills, three played a predominant role: decoding ability, oral comprehension and vocabulary. Published in the November 8, 2013 issue of *PLoS ONE*, these findings were obtained in collaboration with the Faculty of Psychology and Educational Sciences of the University of Geneva. The report also underlines the importance of evaluating and cultivating these skills starting in the first year of school in order to improve children's reading comprehension.

Learning to read is a long, complex, difficult process that requires both teaching and systematic, in-depth guidance. In France, 5% of the children in any given class will have difficulties learning to read and write in their first year of school, but this percentage can exceed 25% in certain underprivileged areas, identified as priority education areas or "ZEPs." It is therefore very important to identify the skills that directly influence first-year primary school children's reading comprehension in order to propose exercises that can optimize the process of learning to read, especially in ZEPs.

Researchers from the Laboratoire de Psychologie et Neurocognition (CNRS / Universités Pierre Mendès France and Joseph Fourier / Université de Savoie), the Laboratoire de Psychologie Cognitive (CNRS / Aix-Marseille University) and the Laboratoire Psychologie de la Perception (CNRS / Université Paris Descartes), in collaboration with the Faculty of Psychology and Educational Sciences in Geneva, surveyed 394 first-year elementary school children at the beginning and end of the school year to determine their level of acquisition of the three basic skills that influence reading comprehension:

- "Decoding": the speed and precision with which they can recognize written words (familiar or invented),
- Oral comprehension,
- Vocabulary.

At the end of the school year, the pupils were tested for reading comprehension in order to compare all the factors and determine the role of each skill in the understanding of written language.

The results obtained with these 394 children at the end of their first school year reveal for the first time that, of all the factors that can affect reading comprehension (e.g. spoken language characteristics, attention span, memorization capacity, etc., adding up to 100%), decoding ability accounted for 34%, oral comprehension 8.9% and vocabulary 4.5%. These figures are significant, showing the importance of these three skills for children to understand what they read.



www.cnrs.fr



These unprecedented results have far-reaching implications in the field of education. They show that evaluating these three abilities (decoding, oral comprehension and vocabulary) could help teachers identify children who are likely to have reading difficulties and give them specific training at an early stage.

-
- (1) In the French educational system, primary and secondary schools in the *Zones d'Education Prioritaires* (priority education areas, or ZEPs) are given additional resources and greater autonomy to deal with exceptional academic and social difficulties. They were created by the French Ministry of Education in 1981 following an inter-ministerial order and were aimed at lowering dropout rates. While the ZEP program was officially discontinued in 2006-2007, replaced by other measures under different names (APV, RAR, CLAIR, ECLAIR, etc.), the acronym is still widely used within the French educational system.

Bibliography

Reading Comprehension in a Large Cohort of French First Graders from Low Socio-Economic Status Families: A 7-Month Longitudinal Study. Edouard Gentaz, Liliane Sprenger-Charolles, Anne Theurel, Pascale Colé, Research Article, published 08 Nov 2013, PLOS ONE 10.1371/journal.pone.0078608
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0078608>

For further reading:

Apprendre... Oui Mais Comment? ("Learn, of Course, But How?") E. Gentaz (Ed). ANAE N 123 – special issue. 2013.

Apprendre à Lire ("Learning to Read"). S. Dehaene (Dir), G. Dehaene-Lambertz, E. Gentaz, C. Huron, and L. Sprenger-Charolles. Editions Odile Jacob, 2011.

Lecture et Dyslexie: Approche Cognitive ("Reading and Dyslexia: A Cognitive Approach," second edition). L. Sprenger-Charolles and P. Colé. Editions Dunod, 2013.

Contact information

CNRS researcher | Edouard Gentaz | T +33(0)6 08 84 47 92 | Edouard.Gentaz@unige.ch

CNRS press officer | Laetitia Louis | T +33(0)1 44 96 51 37 | laetitia.louis@cnrs-dir.fr