

Institutionen för didaktik och pedagogisk profession

# Möte med multimodalt material

Vilken roll spelar dyslexi för uppfattandet av text och bild?

av

Eva Wennås Brante

AKADEMISK AVHANDLING

som med tillstånd av utbildningsvetenskapliga fakulteten vid  
Göteborgs universitet för vinnande av doktorsexamen i Pedagogik  
framläggs till offentlig granskning

Onsdagen den 18 juni, klockan 13.00

Lokal: BE 014, Pedagogen Hus B

---

Fakultetsopponent: Professor emerita Siv Fischbein



GÖTEBORGS UNIVERSITET  
ACTA UNIVERSITATIS GOTHOBURGENSIS

## Abstract

Title: Encounter with multimodal material. The role of dyslexia for perceiving text and picture  
Author: Eva Wennås Brante  
Language: Swedish with an English summary  
ISBN: 978-91-7346-791-9 (print)  
ISBN: 978-91-7346-792-6 (pdf)  
ISSN: 0436-1121  
Keywords: Multimodality, eye-tracking, dyslexia, variation theory, reading comprehension, mixed methods

The aim of the thesis is to describe how two different groups of respondents, with and without dyslexia, experience and reproduce information from text and images compared with text only, and whether and in what way differences in representation effect their expressed understanding. An eye-tracking study based on assumptions from variation theory (contrasts need to be experienced to discern critical aspects of a phenomenon) was performed. The eye movements of 50 participants (mean age 23.8) were recorded while they were retrieving computer-based information and some participants were interviewed. Analysis was performed with a mixed methods approach, using statistical calculations of eye movement events, interpretations of eye movement patterns, oral answers, retention tests and interviews.

The thesis has its theoretical basis in variation theory, ‘the simple view of reading’, theories of multimodality and multimedia learning. The results show that the reading comprehension scores of participants with dyslexia decreased when pictures were present and that the control group inspected pictures earlier but also performed more transitions between text and image. The results highlight the impact of contrasts for discernment; meeting a non-expected picture leads to early inspection in both groups, giving a positive effect with regard to reading comprehension for the group with dyslexia. The design of the presented material thus played a significant role. Instructions in learning situations for how to efficiently process multimodal materials are thus crucial for people with dyslexia.